

A GATEWAY ISLAND
AN EXPLORATION OF EVIDENCE FOR THE EXISTENCE OF A
CULTURAL FOCUS IN THE FORM OF A 'GATEWAY COMMUNITY'
IN THE ISLE OF THANET DURING THE BRONZE AGE
AND EARLY AND MIDDLE IRON AGES

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VOLUME I

NUMERICAL DATA, TABLES AND APPENDICES ARE CONTAINED
IN VOLUME II

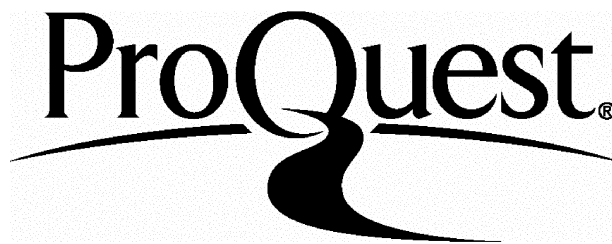
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ABSTRACT

The research for this study was originally prompted by the writer's discovery that the Isle of Thanet in East Kent possessed and continues to yield evidence of prehistoric settlement and trade inordinate for the size of the Island. Thanet comprises only 2.2% of the area of Kent, yet in several fields of evidence such as prehistoric settlements, barrow cemeteries, bronze hoards and prestige imported artefacts, Thanet provides a large fraction, often over 30%, of the County's total of such evidence.

A possible explanation for this phenomenon was that the Island, commanding passage of the one-time Wantsum sea channel, had supported a 'Gateway Community' as defined by Hirth in 'Interregional trade and the formation of prehistoric gateway communities' (Hirth, K.G., 1978, *Am. Ant.* 43). For much of the last two millennia of prehistory, limitations in the design of sea-going trading vessels would have largely confined English Channel crossings to the narrows of the Dover Strait area, and would have precluded rounding of the North Foreland. Under these constraints the Wantsum Channel would have been a vital link between Britain and the Continent. A community controlling the passage and pilotage of the Wantsum would have been in a powerful position. The demise of the Wantsum as an essential link in the Thames - Rhine - Seine trading sea-way would have come about in the Late Iron Age with the development of sailing craft able to tack into the wind and large enough to be safe in heavy seas.

In support of the thesis of a Thanet Gateway Community, the writer has examined and analysed the Kentish distributions appertaining to prehistory, these being cropmarks, barrow cemeteries, settlement sites, and finds of ceramics bronzes and coins. Each of these is allocated a chapter and discussed and interpreted separately. In a final summary and discussion, the writer concludes that from a heuristic viewpoint a good case exists for a Thanet Gateway Community, with no other ready explanation for the Island's heavy concentration of sites and cultural materials.

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In compiling this study I received help from the following sources: Dr. Alex Gibson for access to his un-published notes on the Gabbroic 'Trevisker' urn found at Monkton in 1994. The late Len Jay for his advice on Thanet beakers, David Holman for his help with Celtic coins. Martyn Barber for new data on bronze artefacts in Kent. David Yates for un-published information on Late Bronze Age settlements in the Upper Thames Valley. And Nigel Macpherson-Grant for help, advice, and access to his un-published gazetteer and research notes on the prehistoric pottery of Kent. The latter is ongoing research, and so not comprehensive, but can be considered to represent 50 - 75% of the extant data.

I wish to express my thanks to all the above, also and especially to my two supervisors at the Institute of Archaeology, University College London. Dr. Peter Drewett and Dr. Susan Hamilton.

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Frontispiece: Sewn-planked boats crossing the Dover Strait.

**Illustration by Bill Gregory
Courtesy of Express Newspapers**

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AN EXPLORATION OF THE EVIDENCE FOR THE EXISTENCE OF A CULTURAL FOCUS IN THE FORM OF A 'GATEWAY COMMUNITY' IN THE ISLE OF THANET DURING THE BRONZE AGE AND EARLY AND MIDDLE IRON AGES

D. R. J. Perkins

CHAPTER 1. INTRODUCTION

1.1. The origin of the research

This research originated during the writer's involvement in the archaeology of east Kent and in particular the Isle of Thanet from 1976 to 1994, and questions posed by discoveries in the area, both new and old. These led to the belief that Thanet may have constituted a cultural focus during the last two millennia of prehistory. By 'cultural focus' the writer means an identifiable node at which, within a given area and cultural period, the observed density of various cultural attributes peaks. This might be due to special geographic and maritime factors which conferred the status of 'Gateway Community' on the Island. Until 1976 archaeological activity in Thanet had been occasional and sporadic, carried out by small and transient local groups or visiting academics, usually in response to a chance discovery. On these occasions however, the evidence or finds unearthed tended to be of outstanding interest and high quality, so that among Kent's archaeologists Thanet gained a reputation as an archaeological 'hot spot' and an untapped resource of important evidence.

From 1976 on, due to Manpower Services Commission funding, and latterly the advent of contract archaeology, a continuous archaeological presence has been possible in the Island constituted by Thanet Archaeological Society and Trust, with the writer directing fieldwork for both organisations. With the commencement of rescue and research archaeology and a planned programme of field walking and aerial survey, it was soon obvious that Thanet's reputation was well deserved. A Thanet Sites and Monuments Register was compiled in 1987, and when two years later a register for the whole of Kent appeared, it became evident that in terms of both recorded archaeology and cropmark sites the county's main distributions were in east Kent, the density of sites in Thanet being inordinate for the land area involved.

With the realisation that Thanet's concentration of sites represented a phenomenon within Kentish and even national archaeology, came the question, what does this mean? An early pointer had been given by Ann Ellison, who, writing on the pattern of settlement in Middle Bronze Age Britain (Ellison 1980) stated that:

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"Further central enclosures remain to be identified, one in Cornwall the other in east Kent."

Her term "central enclosure" refers to defended enclosures that appear by their position to be central within a regional socio-economic entity, the focus for exchange, and possibly administrative, and military power. The evidence for this lies for the most part in the distribution within these regions of bronze hoards, and in particular of 'ornament hoards' containing high prestige goods and concentrating around the 'enclosures'. Such sites are also positioned at the overlapping interfaces of fineware ceramic zones.

The theory had currency throughout the 1980s and up to 1994 when this work commenced. It was in that year, (appearing in 1995), that it was seriously challenged (Needham and Ambers 1994) at least as to the validity of hoard distribution evidence, which was seen to be flawed by conflation (Needham and Ambers 1994, 239). However, in the closing paragraph of their discussion of Rams Hill, Needham and Ambers state:

"We should not perhaps be too ready to read the Rams Hill sequence necessarily as a product of continuity, but the site does appear to have been a durable element in social consciousness over several centuries, despite the lack of evidence that it was a 'central place'. At the very least, it was deemed necessary for it to be resurrected periodically as an instrument of control in the social landscape."

Clearly, bronze distributions apart, the Rams Hill enclosure enjoyed an elevated status within its region. Whether or not the same could be said for Ellison's other 'Group B' sites is open to question. However, it has been considered fit to at least mention her "central enclosures" elsewhere in this text where appropriate.

Thanet had yielded three ornament hoards, plus four palstave hoards, most of these finds being derived from sites that were subject to at least periodic occupation from the Late Neolithic / Early Bronze Age to the Iron Age. This concentration of ornament hoards seems indicative of the proximity of a centre for trade or exchange, and the associated multi-period sites with others (detailed in Chapter 5) suggests that 'Island' Thanet constituted a continuing socio-economic entity distinct from most of mainland Kent. The area also includes the west bank of the Wantsum, and the hinterland 'Sutton Wedge,' see Fig. 1.2., but as later chapters will illustrate, the distributions of evidence are somewhat attenuated by comparison with those for Thanet, so that west of the Wantsum they appear to constitute a periphery.

Why Thanet though? It was then a smallish island some eighty-five square kilometres in area, and separated from mainland Kent by a sea channel varying between one and five

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kilometres in width, filled with shoals and subject to violent tidal effects. While in longitude it is west of Yarmouth, it constitutes the south eastern extremity of Britain. What advantages if any had such a location to attract prolonged and concentrated settlement? Of a few tenuous lines of thought, one only offered promise, that the Wantsum Channel, a navigable sea-way in an ancient cross-Channel - Thames trading route constituted the attraction, with the possibility that settlements on its banks comprising a 'Gateway Community.'

1.2. Gateway Communities; the definition, variations on the concept, and how a Wantsum Channel / Thanet Gateway Community might have functioned.

Gateway Communities have been defined (Hirth 1978) as:

"A hierarchical society operating on the basis of a prestige goods economy where political advantage can be gained by controlling access to resources that can only be gained through external trade. Such Gateway Communities develop as a response to local trade. They are generally located along natural corridors of communication and at the critical passages between areas of high mineral, agricultural or craft productivity, dense population; high demand or supply of scarce resources; and at the interface of different technologies or levels of socio-political complexity."

Within this broad definition a number of variations can be identified.

Variations on the Gateway Concept

The kind of geographical circumstance that Hirth's definition brings most strongly to mind is that of a physical barrier, the passage of which can be completely controlled to their advantage by a resident population. Such control might be exercised over all movements of people, animals or goods, or appertain only to a 'necessity' like salt, or high prestige goods such as silk, spices etc. Other kinds of 'gateway' can exist however, far less obviously dramatic, sometimes not topographical or even corporeal, but no less effective in their nature, and equally able to be exploited by a Gateway Community. It is necessary to consider these alternatives, especially when seeking such communities in the hinterlands of Britain or Europe, where their appearance as 'Elite Centres' may not equate topographically to a 'barrier situation.' The various factors leading to a 'Gateway' situation can be listed as:

- I) The Gateway of sole passage. A pass say, through a mountain range, a waterway, or a vital string of oases. Those desirous of passage for trade, or to obtain an important commodity are at the commercial mercy of Gateway Communities controlling passage.

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- II) The Gateway of the least arduous route. A sea port perhaps or a vital river junction that constitutes by far the most convenient journey. It can be circumvented, but only at cost in terms of time and effort, and the risk of creating a new Gateway on the alternative route.
- III) The Gateway of sole source. The Gateway Community need not block access if they have absolute control of the vital resource beyond. As an example, rubber. Until rubber-tree seedlings were smuggled out of Amazonia, Manaus on the Amazon controlled the world distribution of the commodity. The entrepreneurs of that city owned the up-stream plantations, and forced the world to come to them. (Pépin, E., 1964, 675).
- IV) The Gateway of secret knowledge. A community exercises monopoly brokerage over a valuable commodity, and their competitors can never discover where it is obtained. A good example of this was the discovery by the fishermen of Medieval Portugal of the great cod fishery on the Grand Banks of Nova Scotia (Wheeler 1972), kept secret from the rest of Europe for over 200 years¹. Little wonder therefore that the Portuguese were dismissive and even hostile to Columbus.
- V) The Gateway of technological secrecy. Certain processes, like silk from a moth cocoon or high grade steel from soft iron, might be mysteries to both the end customers and Gateway Communities profiting by the passage of the finished product. The spread of such technologies, especially through Gateways would be very much against the interests of such communities.

Factors I and II are mutually exclusive, but either could operate in combination with Factors III, IV and V, each of which can exist in its own right fulfilling Hirth's definition of a Gateway Community.

How a Wantsum Channel / Thanet Gateway Community might have functioned.

On considering the forgoing definition and its variations, it is apparent that Thanet in prehistory possessed at least the geographical ingredient for a Gateway Community, the Wantsum Channel. Rising sea levels after the last glaciation made Thanet an island by about 8000 BC. The strait so created was about one kilometre across at its narrowest at Sarre and core samples indicate that it was about fifteen metres deep in mid-channel. While it held islands and shoals, which can still be seen and would have been subject to extreme tidal effects, it nevertheless had a great advantage for the maritime traders of prehistory. Navigation of the Wantsum would have allowed access to the sheltered waters of the Thames Estuary without braving a perilous cape.

The North Foreland, the south eastern most extremity of Thanet and Britain, is the point where two great tidal systems, of the North Sea and English Channel meet. Where they collide fierce currents run, and massive swells can build up even in conditions of high summer calm.

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With a gale from the north or east Thanet's north coast becomes a 'lee shore.' To illustrate the dangers of this in the days of sail, after a sudden gale in November 1877 fifteen sailing vessels went aground or had gone to pieces between Walpole Bay and Westbrook Bay at Margate (local newspapers). These luggers, brigs, and barques, were arguably among the most sophisticated and practical sailing vessels ever built. If they came to grief so easily, what chance for a Bronze Age trader, less than ten metres long, its planks stitched together with cords and thongs?

Another factor was that prehistoric vessels could not tack, but only sail down wind. The prevailing winds of the English Channel are the south-westerlies, so that a trader on the coast of France would have little trouble crossing to the Wantsum mouth or North Foreland in fair weather. If he overshot the Foreland though, or could not round it, rowing against fierce currents, the next stop was Norway! If the Wantsum formed an indispensable link in a Seine/Rhine - Thames trading highway, then a community commanding its passage and pilotage would have had power indeed.

Such a community might: i) Deny passage of the channel to any who would not land to pay a tithe and give the community first offer on all cargo. ii) In providing the community of seafarers who carried out trading voyages along the whole maritime trading route, be able to establish the Wantsum as a two-way stopping point, thus controlling all aspects of trade and exchange from the ports of origin. Evidence for prehistoric Gateway Communities in Britain and Europe, and the pattern of maritime trade routes linking the Mediterranean with North Sea is presented in Chapter 11.

A case has therefore been suggested for a cultural focus and possible Gateway Community in east Kent, and this study seeks to illustrate and demonstrate this case. To do so has required the bringing together of many strands of evidence, some existing, to be gathered and collated, some obtained by designed experiments, and some turning up fortuitously during the course the study as a result of archaeological fieldwork.

1.3. South-east Britain in Prehistory as the regional setting for a Thanet Gateway Community

So much of this work is devoted to examining distributions of archaeological data from Kent, and more particularly east Kent, that to avoid the danger of it becoming an insular study, it is necessary to take stock of a wide regional setting in which the Kentish data is encapsulated. This is addressed in Chapter 11. The boundaries chosen for the region, hereafter referred to broadly as the South East, confine areas long defined by prehistorians as a group of distinct but closely

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connected cultural zones. These are: Central Southern Britain (Wessex and Dorset) the Thames Valley, and the counties of the south-eastern and eastern regions.

Archaeology in the South East during the first and second millennia BC with its attendant problems is reviewed in Chapter 11, Section 11.1. The scale of the subject, especially when dealing with the Iron Age, is such that the review must be a *précis*. However, the major socio-economic phases and movements as at present postulated are given, and Section 11.2 explores the possible roles and interactions of a Thanet gateway Community in this wider scene through two millennia.

1.4. Geographic boundaries and geographic change

The boundaries of Kent for the purposes of this study and as shown in all figures are those which held up to the middle of the twentieth century, making the county more extensive to the north-west than is recognised today. Kent's current boundaries in that direction are 'political' and result from the incorporation of large areas into London boroughs. To have confined the study within these new boundaries would have meant omitting many sites and finds that were considered to belong in Kent until the 1980's, and qualifying much of the literature, since previous reviews of Kentish archaeology either pre-date or have ignored these incursions.

Kent has the longest coastline of any county in Britain, and has both lost and gained land from the sea during and since the period under consideration. Four processes have been at work. The most major of these was Flandrian sea level rise coupled with tectonic subsidence. These effects have been studied in relation the Thames Estuary (Devoy 1979) and others. From the latter research the sea level rise in the area from 2000 BC can be roughly estimated as 4 - 6 m. above mean H.W.M.S.T. Those parts of the Kent where marine transgressions have had most effect are the whole north coast from Birchington to Gravesend, both sides of the Wantsum Channel which formally separated the Isle of Thanet from mainland Kent, the Deal - Walmer coastal plain, and the coastline east of Folkestone, (Fig. 1.1). The total area of land lost will remain an imponderable, but at Minnis Bay, Birchington, Neolithic settlement remains are found 500 m. off of the modern high water mark (Macpherson-Grant 1997) and west of Whitstable a system of ditched prehistoric fields extends to a similar distance (pers. comm. Tim Allen, Canterbury Arch. Trust).

Wherever there are cliffs on the Kent coast these suffer attrition by wave action and weathering. Particularly effected are the chalk cliffs of Thanet, those between Walmer and Sandgate, cliffs of Tertiary Beds between Reculver and Herne Bay, and on the north coast of

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Sheppey, (Fig. 1.1). Evidence for this came from eighteenth century estate maps, nineteenth century photographs, and the recorded loss during the writer's lifetime. For the Isle of Thanet, it has been possible to calculate an approximate rate of land loss from cliff erosion of 30 m. per century (Perkins 1987a). The joint effects of cliff erosion and rising sea levels in reducing the Isle of Thanet are shown in Fig. 8.1.

Land has been added to Kent by the constant movement north-west and up-channel of flint shingle eroded from the chalk cliffs between Sussex and Dorset. Where the tidal force has been arrested, this material has during historical times created the Cape of Dungeness and the Walmer and Stoner Banks. Much land has also been added by the deposition of alluvium by the rivers Thames Medway and Stour, a process abetted by human action since c. AD 1000 by the building of dykes. This has created areas of marshy levels in the Swale and in the delta of the Medway, and completely filled the ancient Wantsum sea channel. Since the Isle of Thanet is central to this research, its metamorphosis by inundation, erosion, silting and the hand of man over the last 10,000 years is herein reconstructed and dealt with in detail in Chapter 8.

All the above forces have obscured the prehistoric archaeology of Kent. Great areas of coast have been lost to erosion or inundation, or buried beyond observation under shingle drift or alluvium, and this has been born in mind when the apparent distribution of settlement sites and finds has been considered in later chapters. The varying geology of Kent, and the way in which this might effect the distribution of data because of land use, or responsiveness to cropmark formation is also addressed in the appropriate chapters. Towns, villages and localities in east Kent that are often referred to in this study are shown in Fig. 1.2. Also, the figure defines the boundaries of the 'Sutton Wedge,' the area of cropmark concentration south-west of the Wantsum mentioned in Chapter 2.

1.5. Chronology

With minor departures by way of illustration, this study is confined chronologically to the last three and a half millennia of prehistory, and principally to the last two millennia. Periods have been assigned for the purpose of marshalling evidence, these are:

The Early, Middle and Late Neolithic (3500 - 2000 BC).

An overlapping Late Neolithic - Early Bronze Age Beaker Period (2200 - 1700 BC).

The Early Bronze Age (2000 - 1500 BC).

The Middle Bronze Age (1500 - 1000 BC).

The Late Bronze Age (1000 - 600 BC).

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The Late Bronze-Early Iron Age (600 - 300 BC).

The Middle Iron Age (300 - 100 BC).

The Late Iron Age - Belgic (100 BC - AD 50).

Some of these chronological divisions conveniently reflect cultural peaking observed in Kentish archaeology, as for example the proliferation of Late Bronze Age hoards and of Late Bronze - Early Iron Age settlement enclosures. Where radiocarbon dates appear in the main text the laboratory details are given in Volume 2, Appendix 11.

1.6. Methodology

The evidence on which this study is based and from which its conclusions are drawn derives from three sources, the literature and archives of Kent archaeology, specialist theses on associated subjects such as cross-channel trade, and current archaeological work in Kent by the writer and others. As a first step *Archaeologia Cantiana* the annual journal of the Kent Archaeological Society from Volume 1 (1858) to 114 (1994) was the starting point for all references to the prehistoric archaeology of the county, Neolithic to Late Iron Age. Other publications such as *Antiquity*, *The Antiquaries Journal*, *Proceedings of the Prehistoric Society* etc., contain occasional and scattered papers and references to Kentish prehistory. Fortunately, these items have been indexed in the libraries of the Canterbury and Thanet Archaeological Trusts, so that access is possible either in the original, or via the British Library. Information from these sources was stored in a computer database for speedy reference and cross-reference.

A cut-off point for the inclusion of data in this study was needed, and in general this was assigned by the writer to material available or awaiting publication in 1994, the year the study was commenced. Specially important material appearing as late as 1998 is included, but its relationship to the 1994 cut off is in each case considered in the text.

Owing to complex social and political factors, archaeological fieldwork in Britain has flourished since the 1970s and particularly since publication in 1990 of PPG 16, the Department of the Environment's Planning Policy Guidance document on archaeology. Although latterly, developer funded contracts usually contain a provision for post excavation work and publication, the sheer volume of work and the need for processing, specialist reports etc., has created a considerable publication backlog. To gain access to this un-published data, the writer has communicated personally with those organisations working in Kent who are disposed to exchange information and co-operate with students. Effectively, these are: Canterbury Archaeological Trust, Thanet Archaeological Society and Trust, Wessex Archaeology, the

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County Archaeologist (Planning Department Kent County Council), English Heritage, and the Royal Commission on the Historic Monuments of England.

An additional area of data consulted was that of specialist research by individuals. The writer's own unpublished researches include the excavation of Bronze Age round barrows and the construction of a replica barrow as a long term experiment, see Chapter 3, both activities undertaken in the course of this study, also research into the metallurgy and morphology of bronze palstave axes (Day and Perkins 1996) see Chapter 5. Others whose unpublished research material was consulted were: Dr. Alex Gibson, Nigel Macpherson-Grant, Len Jay (prehistoric ceramics in Kent), Martyn Barber (bronze artefacts in Kent), and David Holman (Celtic coins).

1.7. Literature review

The following is not intended as a comprehensive review of the whole literature falling within the section headings below, but is selective, the writer confining it to those publications found helpful, and cogent and relevant to the theme of this study.

Regional cultural focus and Gateway communities

Apart from the paper by Ann Ellison (1980) mentioned above, the possibility of such regional foci seems only to have attracted brief consideration and fleeting comment from British prehistorians. The possible Gateway status of the Late Bronze Age Thames-side communities, from Mucking west to Runnymede-Peters, and Carshalton have been touched on by Needham and others, but in a most tentative fashion, indeed latterly with little conviction. They point out that qualitatively, these water-side communities differ little from those inland of them (Needham and Spence 1996). Only Julie Gardiner uses the term 'Gateway' when describing the topographical advantages of a Bronze Age community dominating the Scunthorpe area and its frontage on the Humber (Gardiner 1980, 122). The advent of 'Celtic' regional foci with a dynastic coinage and sometimes associated hillforts is obvious. Gateway communities, in the form of coastal ports of entry remain harder to identify however. Cunliffe and de Jersey (1997) have made a good case for several such ports on the coast of Armorica and the south-west Channel coast of Britain.

The possibility of a Thanet or east Kent cultural focus or a Thanet Gateway Community

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As to the possibility of a 'Central Enclosure in east Kent during the Middle Bronze Age, the only promotion of the thesis has been by the writer and the late Leonard Jay (Jay and Perkins 1993).

Sources for the archaeology of Kent

While reports and notes on Kentish subjects appear from time to time in the *Proceedings* of the *Society of Antiquaries*, the *Prehistoric Society*, and *Antiquity*, the major source of reference for Kentish archaeology is *Archaeologia Cantiana* the journal of the Kent Archaeological Society. This first appeared in 1858 with volumes at two or three year intervals until becoming an annual from 1925, the volume for 1994 being numbered 114. Kent Archaeological Society also publishes an occasional monograph series as a collection of papers (*Collectanea Historica*). Two useful sources that have emerged in the last decade are, 'Canterbury's Archaeology,' the annual report of Canterbury Archaeological Trust, and the Canterbury Trust's monograph series.

Kentish archaeology reviewed

The archaeology of Kent has only twice been the subject of a conspectus. The first of these was produced by Ronald Jessup as one of the County Archaeology's series (Jessup 1930) and was well thought of, being rated by R. E. M. Wheeler as 'a new landmark in Kentish archaeology' (*Arch. Cant.* 43, 1931, 304). Although it has been so much superseded by the accumulation of published fieldwork in the county as to have little value today, we are indebted to Jessup for pointing out that the deficiencies in Kent archaeology were of knowledge rather than material. He emphasised the miserable under-representation of Bronze Age and Iron Age sites, the result of intense concentration on Pleistocene flints and Roman and Dark Age archaeology.

The second review appeared in 1982 as CBA Research Report No. 48. 'Archaeology in Kent to AD 1500' was edited by P. E. Leach and contained contributions by A. F. Clarke (Neolithic), Timothy Champion (Bronze Age), and Barry Cunliffe (Iron Age). While much new work had been carried out in the fifty years since Jessup, each of the above deplored the lack of investigation and synthesis in their respective periods. Clarke: 'the archaeology of Neolithic has been neglected.' Champion: 'there are certain enormous deficiencies.' Cunliffe: 'Iron Age studies in Kent have ... remained something of a doldrum.' It would be safe to say that 'Kent to AD 1500' is a standard work resorted to regularly by Kentish archaeologists. In retrospect however, it can be seen that for many areas of study it emerged just too soon. In 1979 when the papers from which it was compiled were read, the contributors could hardly have imagined the volume and

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quality of evidence that would flood forth in Kent during the next decade as a result of the advent of contract archaeology following the publication of PPG 16. Although evaluation and rescue has been the dominant theme of archaeological activity, research has been served by fortuitous overlapping, so that an up-date of 'Kent to AD 1500' would be most welcome.

National and regional archaeology: The Neolithic and Early Bronze Age

While several single-subject studies were published in the 1960s and 70s, for example Paul Ashbee's work on long and round barrows (Ashbee 1960), and D.L. Clarke's monumental gazetteer and discussion of the British beakers (Clarke 1970), it was not until 1984 that Richard Bradley and Julie Gardiner (eds.) published a review of the then current Neolithic research. This wide ranging review offered papers from eleven contributors, covering aspects as varied as lithic distributions and theoretical reconstructions of ritual, power and ideology (Bradley and Gardiner 1984). Bradley's works on the *Settlement* (1978) and *Social foundations of prehistoric Britain* (1984), and Wainwright's *The Henge Monuments* (1989) were studies on a national scale and formed a useful background. Regional summaries for this period in the South-East have appeared (Drewett 1990 Chapters 2 and 3) Cunliffe (1993). The Neolithic and Early Bronze Age periods in Kent were reviewed by Clarke and Champion respectively in 1982 (*Archaeology in Kent to 1500*) but as previously stated, these papers pre-dated a watershed in terms of archaeological activity.

Regional and National archaeology: The Later Bronze Age

The regional Later Bronze Age archaeology of Wessex, the South-East, and Kent has been reviewed by Cunliffe (1993 Chapter 4), Drewett, Rudling, and Gardiner (1988 Chapters 4 and 5), and Champion (1982), the latter in particular being now overtaken the post-PPG16 deluge of new data. Papers dealing respectively with regions and regional aspects of the period in lowland Britain appeared in 'The British Later Bronze Age' (BAR 83, 1983) edited by Barrett and Bradley. Apart from their own contributions, there were papers by Ellison, Gardiner, Johnson, Jones and Bond, Lawson, Manby, and Needham and Longley. This publication was a much needed overview, and remains a mainstay reference in need of a successor. Later Bronze Age metalwork and more recently discovered hoards have been assessed by Burgess and Coombs (1979), and Needham and Burgess (1980). Detailed examinations of Later Bronze Age settlement sites have been given by Needham and Ambers (1994), Perkins *et al* (1994), and Spence (1996). The importance of the foregoing sources to this study has been the light they throw on the distribution of settlement concentrations in southern Britain, highlighting Thanet's prime position on a coastal -estuarine - riverain - network leading into the populous downlands and fens.

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Regional and national archaeology: Iron Age and Belgic

Cunliffe's overview '*Iron Age Communities in Britain*' (3rd ed. 1991) remains a mainstay work of reference. To this he has added reviews of Iron Age archaeology in western Europe (1994), in Wessex (1993 Chapter 5), and Kent (1982), the latter now in need of revision. The Iron Age in the South-East has also summarised by Drewett, Rudling and Gardiner (1988, Chapter 5). An alternative view of Iron Age Society has been put forward (Hill 1995 a, b) one in which the social stratification of Iron Age Society and the nature and function of hillforts has been questioned. As to the development of Cross-Channel trade, a number of papers edited by Macready and Thompson (1984) deal with aspects of this, as do Cunliffe and de Jersey (1997) wherein the evidence of coins and ceramics is discussed. The British distribution of imported and indigenous Celtic coinage is described in a major research study by Van Arsdell (1989) with Hobbs (1996) supplementing it with gazetteer of Celtic coins in the British Museum collection. Major shifts in social and technical evolution during the period relevant to this study are those of expanding trade with the Continent, made more regular by the appearance of sturdy seagoing trading vessels, a development that reduced the role of the Wantsum Channel and Thanet as a seaway and entrepot.

Prehistoric Shipping and cross-Channel Trade

The general development of sea-going craft from the dugout canoe to the sailing ship has been well charted in works by Johnstone (1980) and Christensen (1974), and the power and speed of oared or paddled vessels has been examined in detail (Coates 1994). Of more particular application to this study was an examination of the ancient boats of north-west Europe (McGrail 1987). Prehistoric 'sewn-planked' boats of the North Ferriby type (see frontispiece) have been described and discussed in detail by Wright (1994), and McGrail (1994). An example of such a craft from the Dover Strait, the 'Dover Boat' is currently the subject of research (Parfitt 1993).

Detailed studies of ancient maritime techniques, customs, seamanship and navigation, can be hard to find. One invaluable source is '*Mariners Mirror*' the journal of the Society for Nautical Research. Contributions that the writer has found most useful are those relating to Phoenician oared ships (Basch 1969), the need for constant replenishment of drinking water in oared galleys (Wegener 1998), and an account of experiments to determine the sailing performance of Anglo Saxon craft using half scale models (Gifford and Gifford 1996). The means for long voyage navigation at the disposal of prehistoric mariners; such as solar and stellar observation, wind and current etc., have been well set out by Frake (1994).

Cross-Channel seamanship and the evidence for prehistoric cross-Channel trade has been explored by McGrail (1983, 1993), Langouët, and Galliou (both 1984). Most recently,

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numismatic and ceramic evidence for Late Iron Age trade between Armorica and south-west Britain has been marshalled (Cunliffe and de Jersey 1997). This appears not to have been extensive, and rather one way in that firm evidence for British exports to Armorica is slim, perhaps because some by their nature, slaves, skins, hunting dogs etc., they would leave no trace.

Theoretical Archaeology

In setting out the theoretical standpoint for this study, it was necessary to review the past and present state of theoretical archaeology, of which useful general summaries have been written by Dark (1995), Renfrew and Bahn (1991) and Trigger (1989). The writer's own theoretical stance is processualist and cognitive-processualist. At the same time the writer accepts the post-processualism tenet that the personal social and political context of an archaeologist, in the writer's case a working class background with consequent somewhat Marxist undertones, can play a role in establishing the theoretical position of the individual and the interpretations that he or she might make.

Theoretical archaeological works of particular relevance to the chapters in this study were:

For aspects of British prehistory, Barrett (1994), and Bradley (1984, 1996, and 1998), the last having a direct bearing on the argument for the re-use of small henge monuments advanced in Chapter 3.

For trade travel and exchange, and the concept of centre and periphery, Renfrew (1993), Champion (1989), and Sherratt (1993) proved most useful, especially in expanding attention from the narrow confines of the English Channel and North Sea, to the greater picture of contact between the Mediterranean nations and the whole of North West Europe.

For applications of cognitive archaeological theory, Renfrew and Zubrow (1994) provided support in the formulation of the scheme for cross-Channel navigations postulated in Chapter 9. The skills recorded as practised by Micronesian canoe voyagers (Frake, C. in Renfrew and Zubrow 1994) could equally have been possessed by Bronze Age navigators of the Dover Strait.

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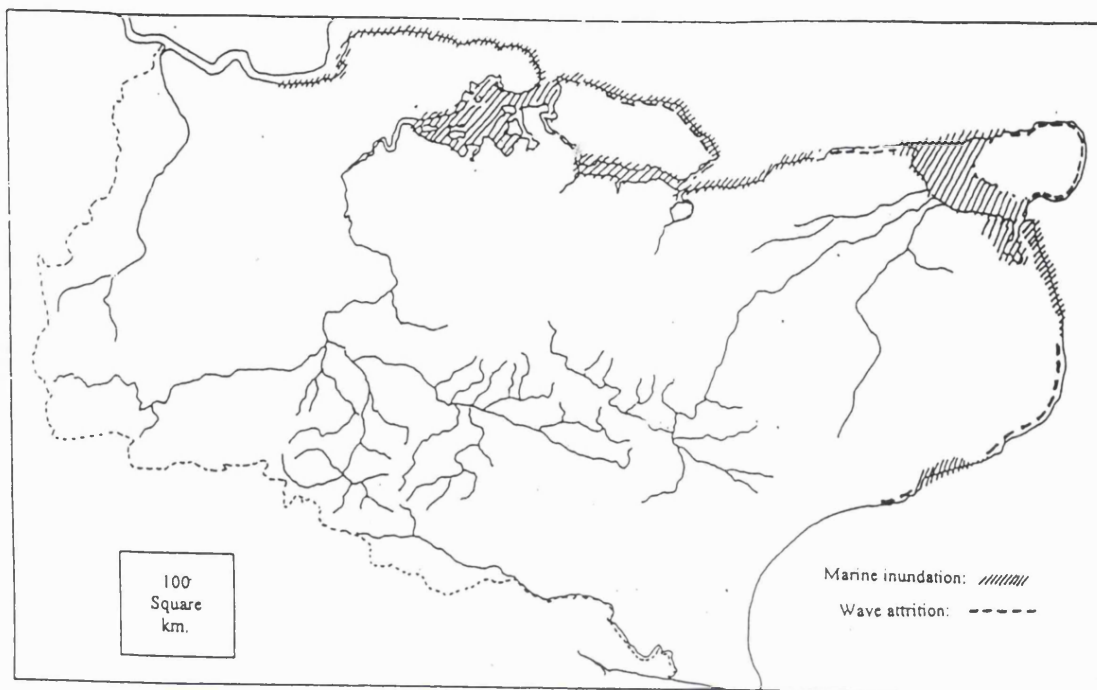


Fig. 1.1. Areas of the Kent coastline effected by wave attrition and marine inundation

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Fig. 1.2. Part of East Kent showing towns villages and localities frequently mentioned in this study, and defining the area of the 'Sutton Wedge' cropmark concentration. The borders give the 1 km OS National Grid References.

Reproduced from OS Sheet 173, One inch to one mile series.

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CHAPTER 2. THE DISTRIBUTION OF SITES FROM AERIAL SURVEY

2.1. General introduction sources and validity as evidence

The chalk downland of east Kent is ideal for crop-mark formation, whether under grass or cereals, and is at least as liberally sprinkled with cropmarks as anywhere in south-east England. During World War I, east Kent saw much air activity as Britain's front line of defences against German aerial raiders. Among airmen who noticed ancient sites was R.F.C navigator O.G.S.Crawford. Later, in the 1920's and 30's, Crawford's outstanding contribution to British archaeology was more or less in introducing the air survey of cropmarks (Crawford 1928). Although most active in Wessex, he included work in Kent. An aerial search of central Thanet in search of 'Thunor's Pit' (Crawford 1933) caused him to remark that 'Thanet and the whole of northern Kent was quite densely inhabited in Roman and pre-Roman times'.

After World War II, some excellent work was carried out in Kent by Professor J.K. St Joseph. Fortunately many of his photos were taken in the mid-1960's before the building boom in the south-east. They show Thanet's fields to be thickly scattered with sites of all periods, many now lost under a sea of bungalows. When in 1982 the writer commenced work on the Thanet Sites and Monuments Register (see Source 1 below), thirty or so St Joseph air photos were incorporated as the original backbone of the register.

Into the 1980s Kent remained one of two counties that did not possess a Sites and Monuments Register. This deficiency was made good in 1989, when a Kent SMR was produced by the Royal Commission on the Historical Monuments of England (RCHME). Existing Thanet SMR data formed a major contribution to the Kent SMR, and the Thanet Archaeological Trust routinely transfers newly discovered Thanet SMR site files to the Kent SMR.

With a large body of cropmark evidence now available, it is possible to analyse the distribution in Kent of likely prehistoric sites, in search of regional foci. Since the data for this study has been drawn from the Kent and Thanet SMRs, which differ as to acquisition methods, interpretation, and terminology, a detailed account of these sources and their construction is here given. It is followed by a discussion and appraisal of the sources, and by comparison with other data, an attempt is made to check the weight of such evidence.

Source 1: The Thanet Sites and Monuments Register (TSMR)

This register of sites was originally compiled for the 'Thanet Unit', predecessors of the present Thanet Archaeological Trust who today keep and update it. It covers the Isle of Thanet, and that part of the former Wantsum Channel (reclaimed in Medieval times) lying east and north

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of the river Stour, and east of a drain that still bears the name Wantsum. Work on the archive commenced in 1980 under the direction of the writer, and copies were first distributed in 1988, when it held 350 site records. The register exists in two forms, as a computer database, and in a 'hard' version contained in A4 folders and illustrated with air photos, maps, plans etc. Hard copies are held by:

Thanet Archaeological Society / Trust (also the database).

Thanet District Council, (two copies). Thanet Central Library, Margate.

Canterbury Archaeological Trust. Kent Archaeological Society, Kent County Council (office of the County Archaeologist), and English Heritage.

While some entries in the register originated in field-walking, chance discovery or oral tradition etc., over 85% resulted from aerial photographic survey. Criteria for admission to the register is that a site should appear of such importance as to justify evaluation trenching or full excavation if threatened by development. Most of the air photos used for the register were obliques taken from an altitude of 1500 feet (457 m.). The aircraft used were Cessna high wing monoplanes, when possible with the starboard door removed. Most of the pictures were taken by the writer, or Mr. Robert Varnham of the Thanet Archaeological Society, using 35 mm. TTL cameras. The writer used a battery of four Pentax 1000K cameras with 50 mm. lenses. Each site was recorded on colour slide film of 400 ASA, and b/w fine-grain negative film of 125 ASA. Survey flights were carried out during April and May of each year, a close watch being kept on crop mark development so as to achieve optimum conditions. In the first few years, sites were photographed as a matter of opportunity. By 1987 however, survey flights were carried out to an annual plan based on crop rotation and a strategy designed to answer questions arising from previous work.

Secondary sources were:

- i) Low level obliques taken by Professor J.K. St Joseph, and supplied by the Institute of Air Photography, Cambridge.
- ii) High level (10,000 feet - 3048 m.) vertical photographs taken by the Potato Marketing Board, and made available by local farmers.
- iii) Low level (2500 feet - 762 m.) vertical colour photographs taken for Kent County Council in 1989 as part of a whole county cover.

Initially, air photo data was plotted on OS maps manually. Later the writer and his brother, the late Mr. Charles Perkins devised a computer program for photogrammetry that would run on personal computers.

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At time of writing the register holds about 650 site files. As more are added, they are communicated to the Kent SMR, and the joint site-file numbers are entered in a 'concordance catalogue'. The TSMR also has an 'apocrypha' section which holds site entries based on, for example, anecdotal evidence, poor air photos, or uncertain locations, pending possible substantiation.

Source 2: The Kent Sites and Monuments Register (KSMR)

This register was compiled in 1986-87 by the RCHME/HBMCE with funding from English Heritage. Initially all published data was incorporated, the gathering process then extending to consultation with archaeological organisations, local library records etc. The register exists as a computer database, with the original software being kept by RCHME at Swindon, while the updating working copy is held by the office of the County Archaeologist for Kent. Some register information was based on sporadically obtained cropmark evidence, the work of many individuals and organisations over fifty years. These data must be considered as a secondary source, since it has been adopted at face value without processing of the source air photos.

The prime-source cropmark component for the register was provided by a survey of more than 14,500 oblique photographs taken between the late 1950s and 1987, and held in RCHME Air Photography Unit archives. The work was carried out over twelve months by a team of two archaeological air photo interpreters, who produced a manual transcription (1:10,000 sketch mapping), and an elementary classification of the evidence. The classification system employed was that developed by the APU (Edis, MacLeod, and Bewley 1989). Subsequently, a report classifying the data was produced for RCHME (Edis 1989), which has provided much of the raw data for this study, although necessarily augmented by TSMR up-dates.

For this study only the sites classified and listed as prehistoric by the APU have been employed. The basis for classification is cropmark morphology, with the sites being attributed to various periods, Neolithic to Iron Age, according to the way in which site forms broadly matches British archaeological experience. For examples of the forms see Fig. 2.2. In general the writer accepts these interpretations, reservations being:

- a) As to the identification of barrow ring ditches as either Bronze Age or Saxon according to diameter. This is dealt with in Chapter 3.
- b) The broad assumption that square or rectangular enclosures belong to the Belgic, Roman and later periods. Evidence contradicting this is given in Chapter 5.

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2.2. The evidence

The crop-mark component of the Kent register originally contained 4831 sites contained within 735 complexes (Edis 1989). Of these 1328 can be attributed to the first two millennia BC, the subject period of this research. As a whole, these marks are concentrated in two areas of the county, Thanet, and the 'Sutton Wedge'¹ (Figs. 1.2, 2.1 and 2.4). There can be several explanations for this. Edis, (Edis 1989, 1.3) offered the following:

- 1) Non responsive soils particularly the Wealden Clays, (Fig. 2.3).
(Some such areas do produce cropmarks however, (Edis 1989, 2.1)
- 2) Negative areas particularly orchards, woods and towns (which do not produce cropmarks).
- 3) Biased survey methods: the Weald does not produce good cropmarks, which in itself discourages aerial survey.

There is also a possibility favoured by the writer:

- 4) That the cropmarks accurately represent the pattern of prehistoric settlement in Kent, or put another way, where there are few cropmarks it is because few people lived there.

If 4) is broadly true why was settlement concentrated? This situation could have come about if Kent's first would-be farmers had commenced operations in a land that was almost entirely forested. In which case geology would dictate settlement pattern as follows:

On the calcareous downland soils (Fig 2.3), as can be seen today, tree cover would have been shallow rooted, with the smaller species predominating. Such light woodland and brush areas could be cleared easily, leaving a rich friable easily ploughed tilth. Elsewhere throughout Anderida the great Wealden forest, the prehistoric farmer would be impotent. Oak and hornbeam giants could be felled and burnt, but that would leave huge stumps and root systems to be grubbed out, and a deep sticky clay, intractable until worked with the iron ploughs and ox teams of Roman and Medieval periods. Here it is worth considering the palynological evidence from Frogholt near Folkestone, and Wingham near Canterbury (Godwin 1962), which shows disforestation at these two downland sites by 1700 bc. (see Appendix 11. 1). Sheldon (1982) concluded that pastoral and arable land use can be traced on the downland from the Early Bronze Age, whereas other soils in Kent were covered with dense forest to a much later time. This had been demonstrated at Caesar's Camp, Keston (Dimbleby 1969).

Since qualified acceptance of hypothesis 4 is crucial to a main argument for an east Kent cultural focus as set out herein, evidence for its broad validity must therefore be provided. A way

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of doing this is to compare the distribution of those cropmarks produced by prehistoric sites, (Fig. 2.12), with a distribution of sites discovered by chance and unassociated with cropmark phenomena, (Fig. 2.5). If hypothesis 4) is broadly correct, the two distributions should appear similar, whereas if factors 1), 2), and 3) cause important bias, a significant number of 'chance sites' should fall outside the cropmark concentrations. Here a possible objection is that types of site likely to have been discovered fortuitously may fall into different categories from those producing cropmarks, so that quite different distributions may be represented. Were this so, the distribution of chance discoveries should be similar to the pattern of Kent's urban and industrial development, since this is the most likely mechanism of discovery.

If however, the plotted distribution of chance discovery (Fig. 2.5) is compared with a plot of Kent's population and conurbations they are not very similar. Population densities and urban/industrial conurbations are shown in Fig. 2.6 along with the data from Fig. 2.5. Some of the symbols for sites and finds (small crosses) are obscured by the graphic conventions used for population density. This is so in Thanet, but it should be noted that in reality, about seventy-five percent of the Island is still open land, and of the twenty-four Thanet 'chance' sites/finds shown in Fig. 2.5 only six came to light during the process of urban development. On the other hand, the chance discovery distribution and that for prehistoric cropmarks (Fig. 2.12) correspond fairly well.

To obtain a distribution of fortuitously encountered sites the writer searched the volumes of *Archaeologia Cantiana* from Volume I (1858) to Volume CIX (1991). Entry qualifications for the distribution (see Fig. 2.5) were:

- i) Round and long barrows.
- ii) Physical remains of settlements.
- iii) Finds such as hoards of bronzes, torques, beakers and other ceramic finds that suggest local activity.

There is no significant bias in the way this evidence was obtained. Some chance discoveries resulted from Victorian urban development, equally others came to light through fieldwork and agricultural attrition. Neither does distribution reflect the geographical demography of archaeologists. Today, the greatest concentrations of chance discovery sites shown in Fig. 2.6 are according to Kent Archaeological Society's membership analysis, home to only 13% of K.A.S. members. The majority (88%) of Kent's archaeological societies and groups are in west Kent and the valley of the Medway., and the work of their active amateur cadres is reflected each year in the pages of *Archaeologia Cantiana*. In east Kent there are only four such groups, at Ashford, Canterbury, Deal - Dover, and in Thanet. Today there are significant numbers

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of professional archaeologists working in Kent as a result of contract archaeology, but this presence post-dates the distribution of fortuitous discoveries given herein..

2.3. A Summary of the data

As can be seen, the chance discovery distribution (Fig. 2.5) corresponds well visually with that of cropmarks (Fig.2.12). Although the combined area of Thanet and the Sutton Wedge constitutes only 10% of Kent, it contains 36% of the discoveries, with a further 20% within 10 km. The foregoing demonstrates the distribution within prehistoric Kent of areas favoured for occupation. It gives no idea whether or not the cultural structure was homogeneous throughout. For evidence that it was not, but gathered about a cultural focus, the distribution will be examined in detail in later chapters. Distribution data and statistics are given in the Appendix to this chapter as Lists I - IV , and as Table 1.

The distributions of certain classes of cropmark site are shown as distribution maps in this section, and will be discussed in Chapter 5. Others such as supposed henges, and long and round barrows are not considered, but round barrows are dealt with fully in Chapter 3. A number of Site lists are also omitted as they are attributed (by RCHME) to the 'Belgic' and Roman periods, although the writer feels that 'blanket' attributions on morphological grounds are perhaps unsafe, in that square and rectangular enclosures were constructed in the Bronze Age. What remains are the following lists:

Hut circles, List 24, supposed prehistoric, total 52 sites of which 36 (69%) are in the Sutton Wedge, 3 (6%) are in Thanet, and 13 (25%) are elsewhere in Kent,
(distribution map Fig.2.7.)

Circular and sub-circular enclosed settlements, Lists 25, 26, 27, 28. Total 61 sites of which 25 (40%) are in the Sutton Wedge, 13 (21%) are in Thanet, and 23 (37%) are elsewhere in Kent, see Fig. 2.8.

'Regular' (asymmetric) enclosed settlement sites, Lists 29, 30, 31, 32. Total 42 sites, of which 30 (71%) are in the Sutton Wedge, 5 (12%) are in Thanet, and 7 (16%) are elsewhere in Kent, (Fig.2.9).

Oval enclosed settlement sites, Lists 33,34,35. Total 29 sites of which 18 (62%) are in the Sutton Wedge, 5 (17%) are I Thanet, and 6 (20%) are elsewhere in Kent (Fig. 2.10).

Curvilinear/asymmetric settlements, Lists 36, 37, 38, 39. Total 74 sites, of which 44 (60%) are in the Sutton Wedge, 15 (20%) are in Thanet, and 15 (20%) are elsewhere in Kent (Fig. 2.11.).

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There are then 258 cropmark sites specifically attributed as prehistoric enclosures in Kent, with 60% of them scattered across the rise of the North Downs in the Sutton Wedge area, 16% concentrated in Thanet's central plateau, and the remaining 25% of sites occurring either close to the Swale and Medway, or on the downland of north-west Kent. So scattered though are the latter sites, that the Sutton and Thanet concentrations are made very obvious, (Fig. 2.12). Most of the sites in the lists are rather small (< 1 ha), and from their size and a few excavated examples they have been interpreted as farmsteads. They can be said to show the agricultural preference of expanding Bronze and Iron Age populations for light friable soils of Rendzina profile. The next section emphasises, from the evidence barrow cemeteries, just how populous were these rural concentrations, but they can only be properly weighed when seen in the context of accompanying larger settlements, and artifactual evidence for wealth and trade.

The fact that 16% of Kent's (attributed) prehistoric cropmarks occur within the 2.2% of the county taken up by the Isle of Thanet must surely be considered as highly significant in terms of the pattern and density of prehistoric settlement.

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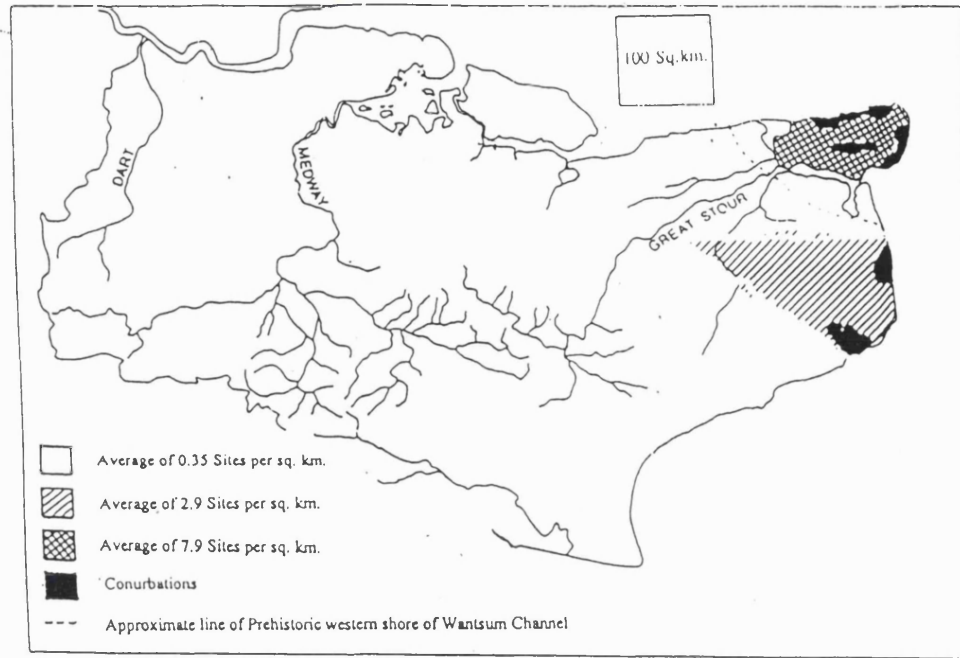


Fig. 2.1. The density of recorded cropmark sites in Kent to 1991

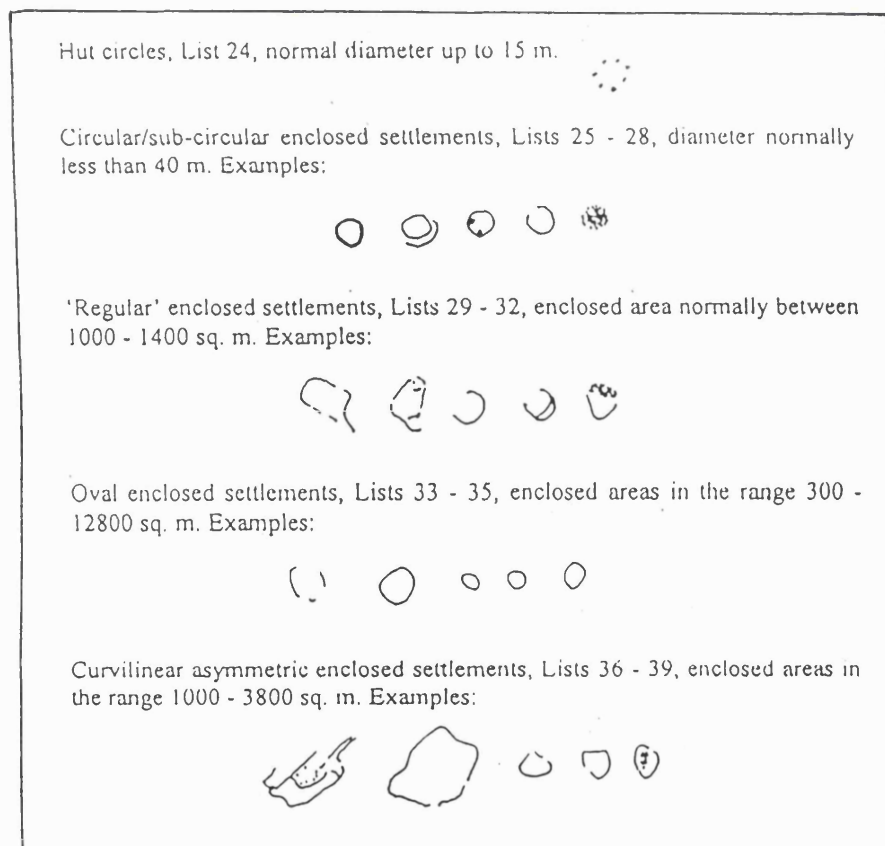


Fig. 2.2. Morphological categories of Prehistoric cropmarks in Kent
(After J. Edis, RCHME 1989)

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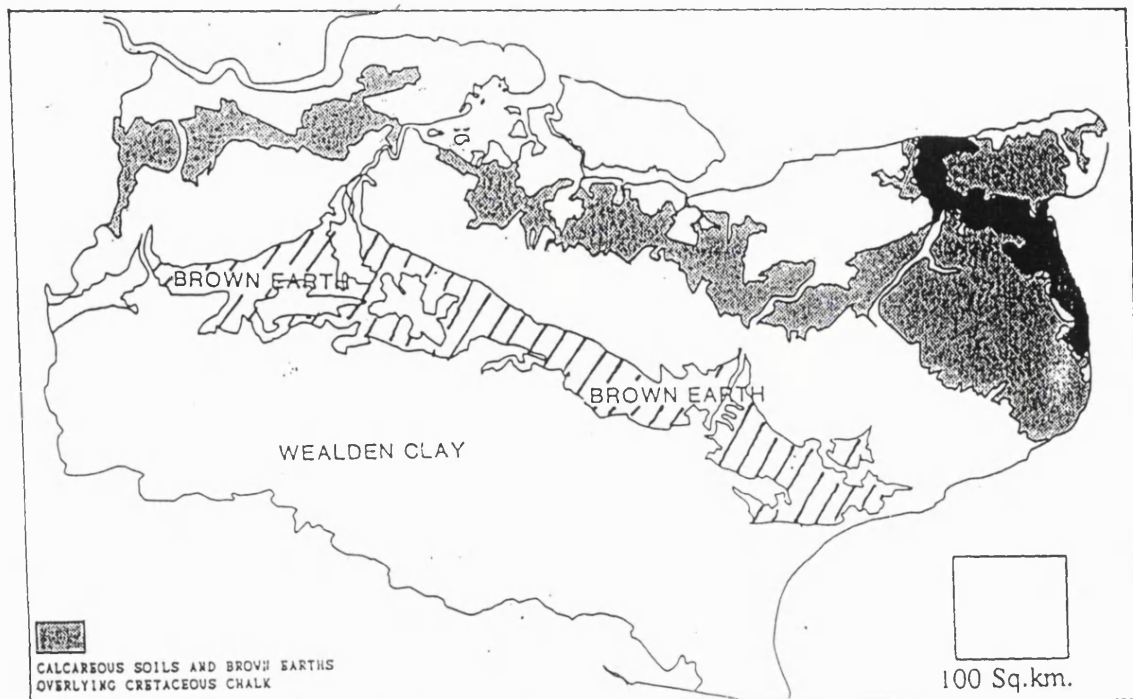


Fig. 2.3. Soils in Kent, the area in solid black is alluvium
(Adapted from RCHME graphics)

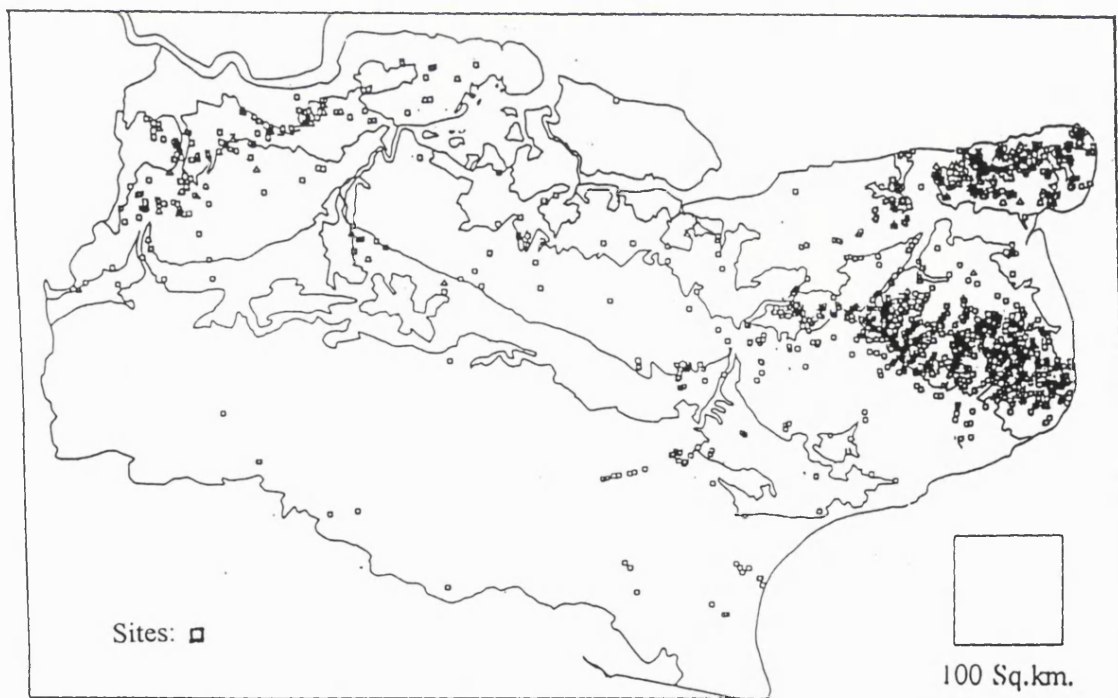


Fig. 2.4. The distribution of cropmark sites of all periods in Kent to 1991
(Adapted from RCHME graphics)

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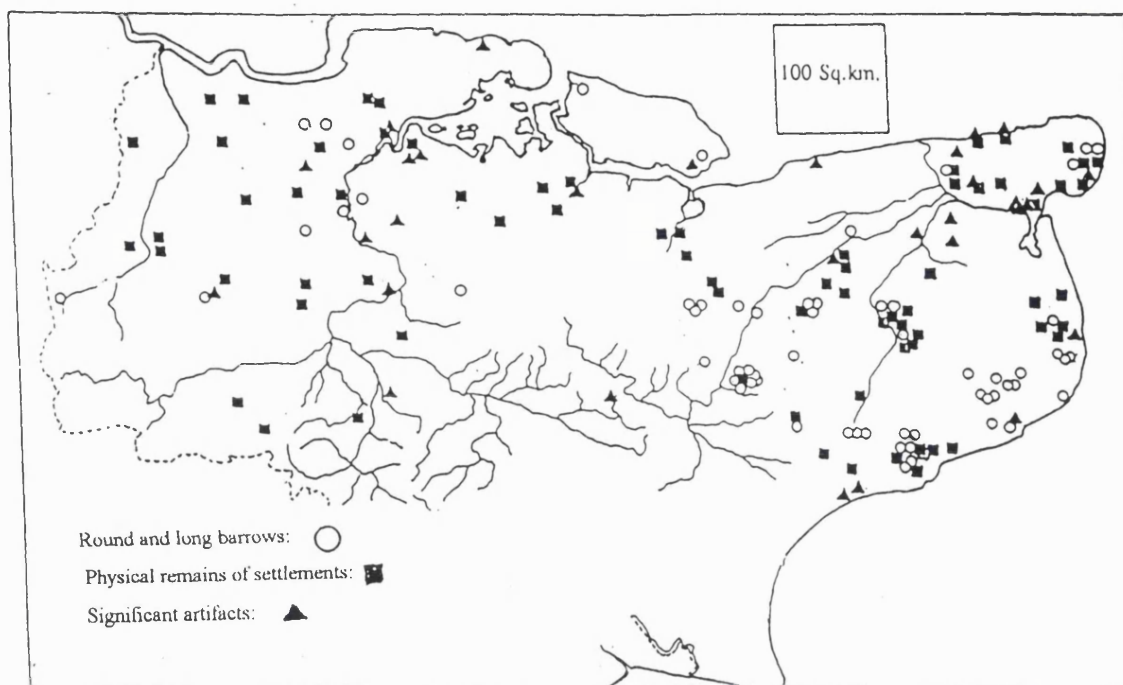


Fig. 2.5 The distribution of prehistoric sites and finds in Kent resulting from chance discovery (to 1994)

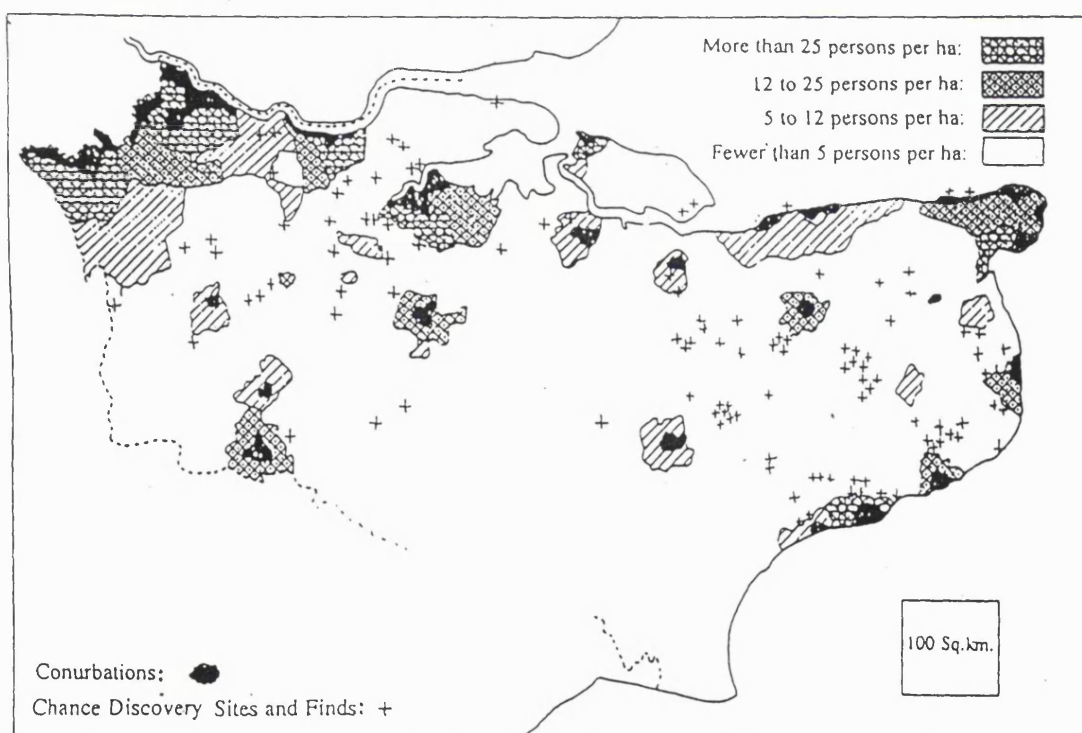


Fig. 2.6. The density of population and urban / industrial conurbations in Kent to 1991 combined with the Fig. 2.5 data

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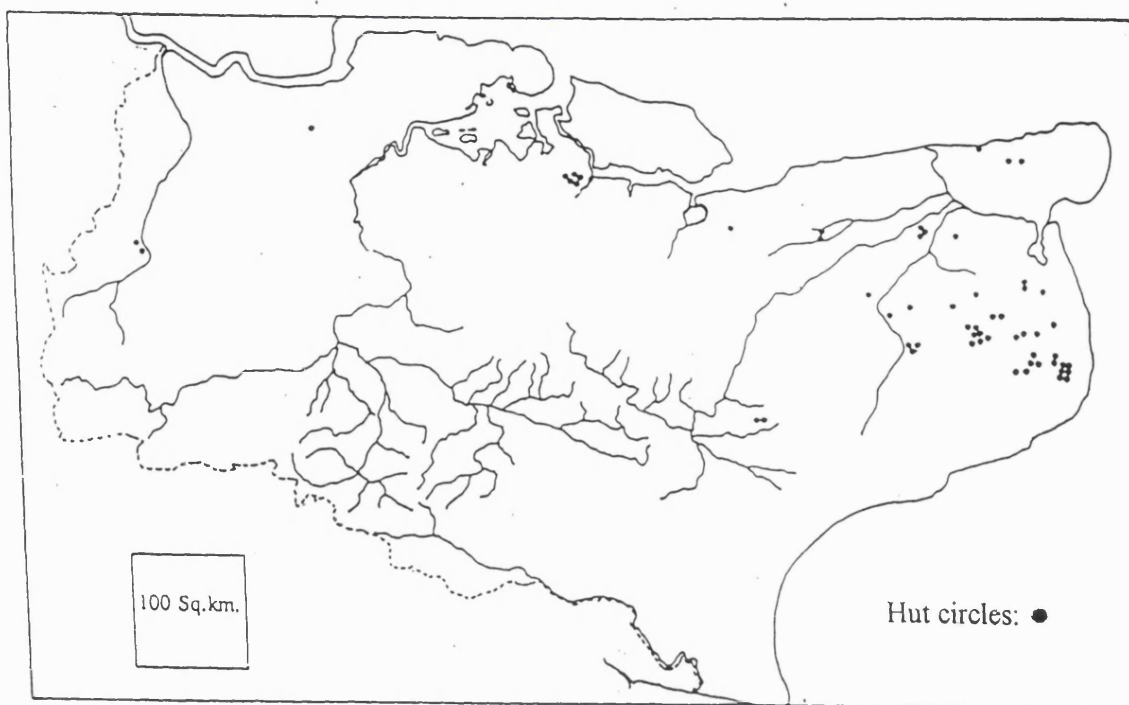


Fig. 2.7. List 24 Sites, hut circles

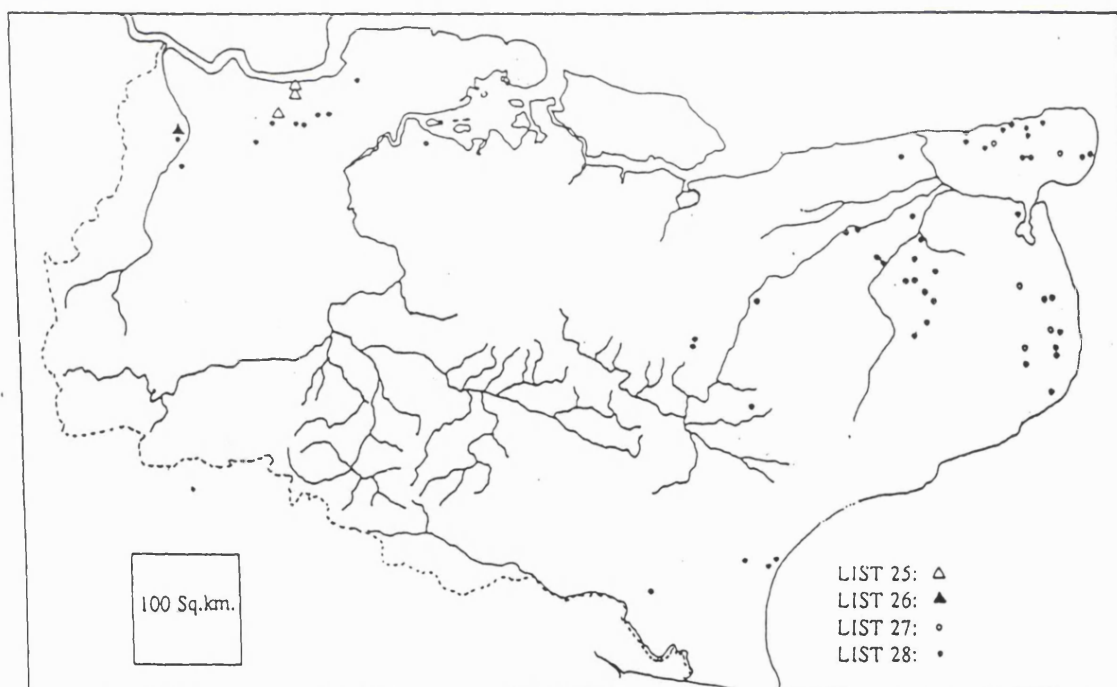


Fig. 2.8. Sites in Lists 25 - 28. Circular and sub-circular enclosed settlements (Fig. 2.2)

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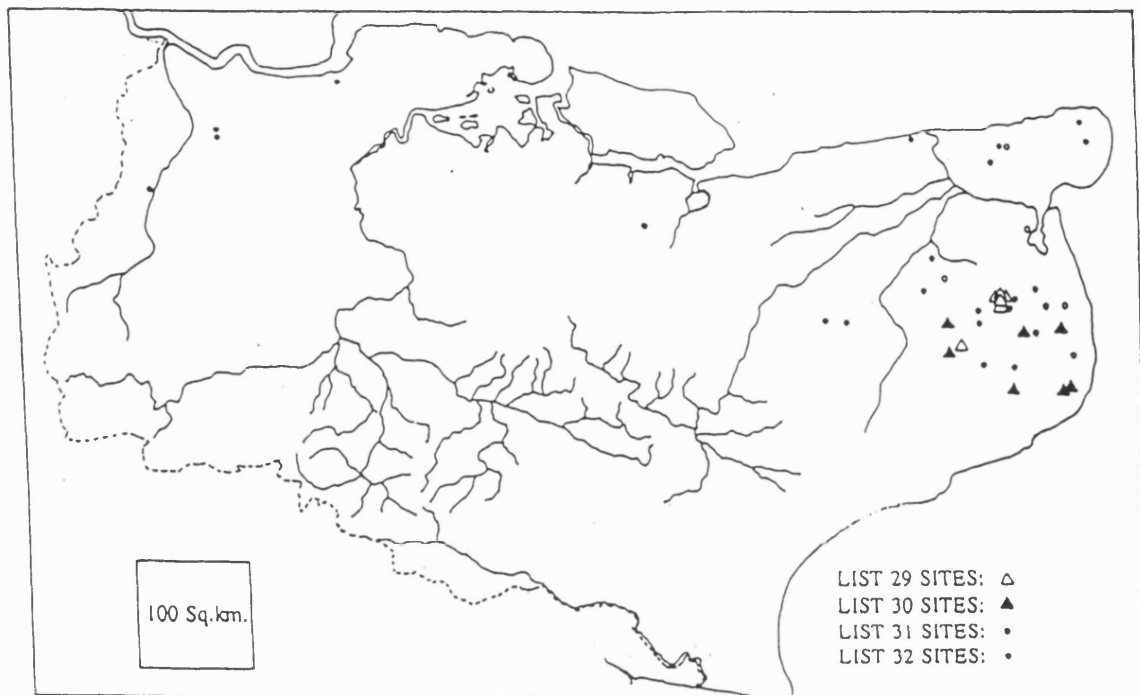


Fig. 2.9. Sites in Lists 29 - 32. Regular enclosed settlement sites (Fig. 2.2)

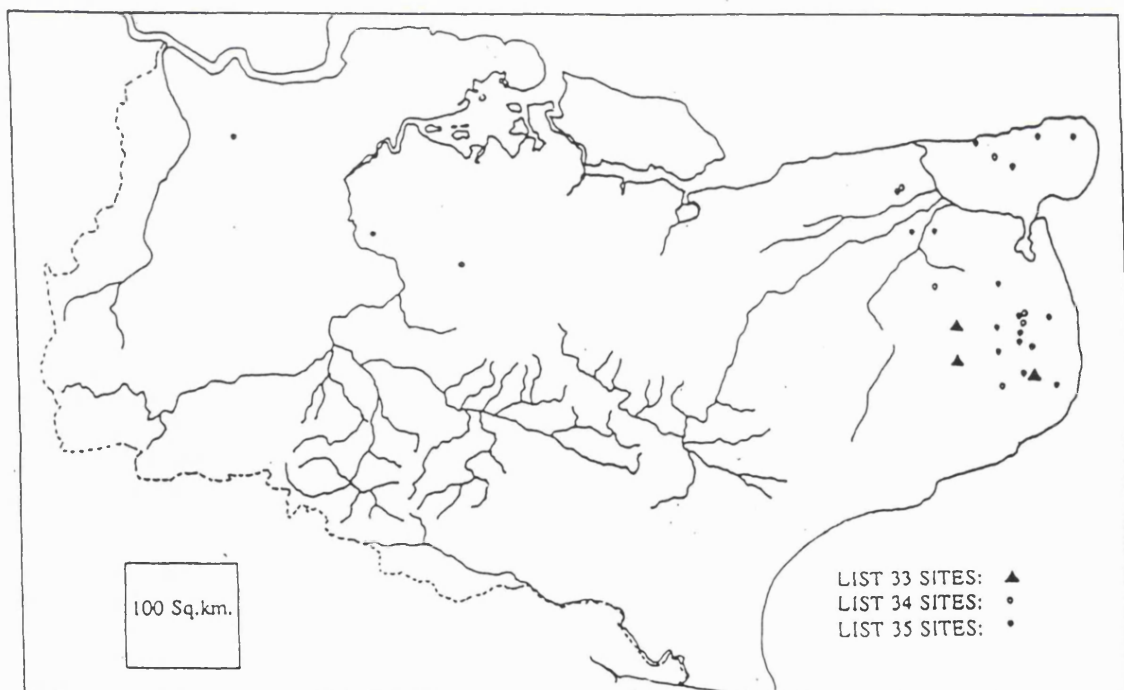


Fig. 2.10. Sites in Lists 33 - 35. Oval enclosed settlement sites (Fig. 2.2)

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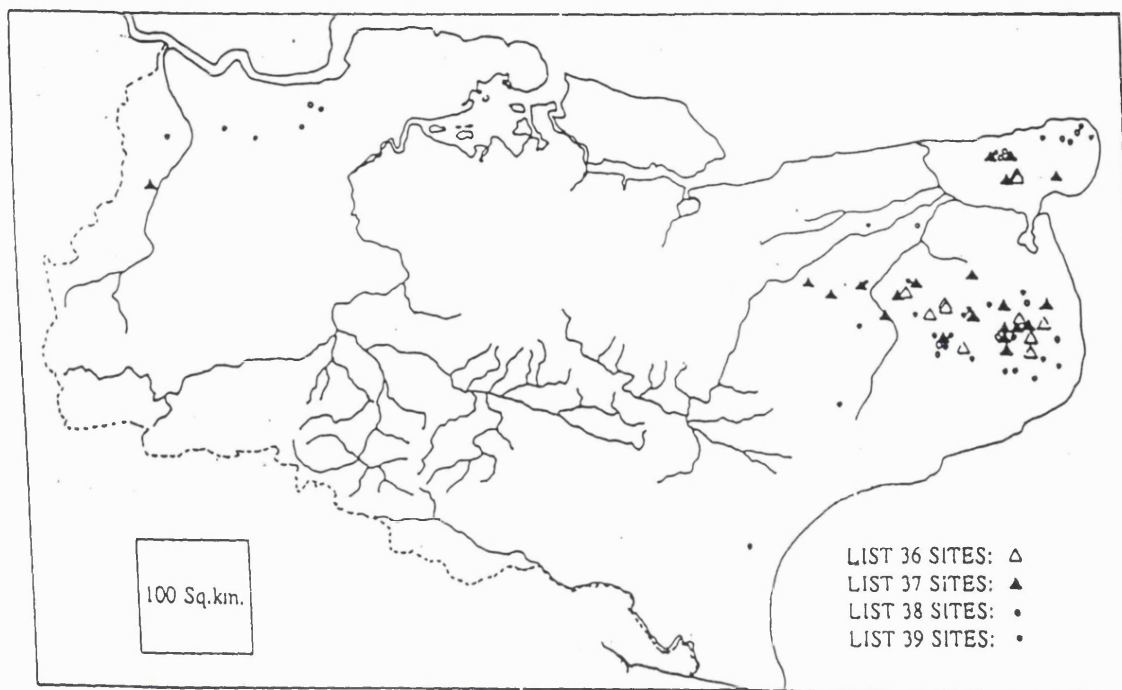


Fig. 2.11. Sites in Lists 36 - 39. Curvilinear asymmetric enclosed settlement sites (Fig. 2.2)

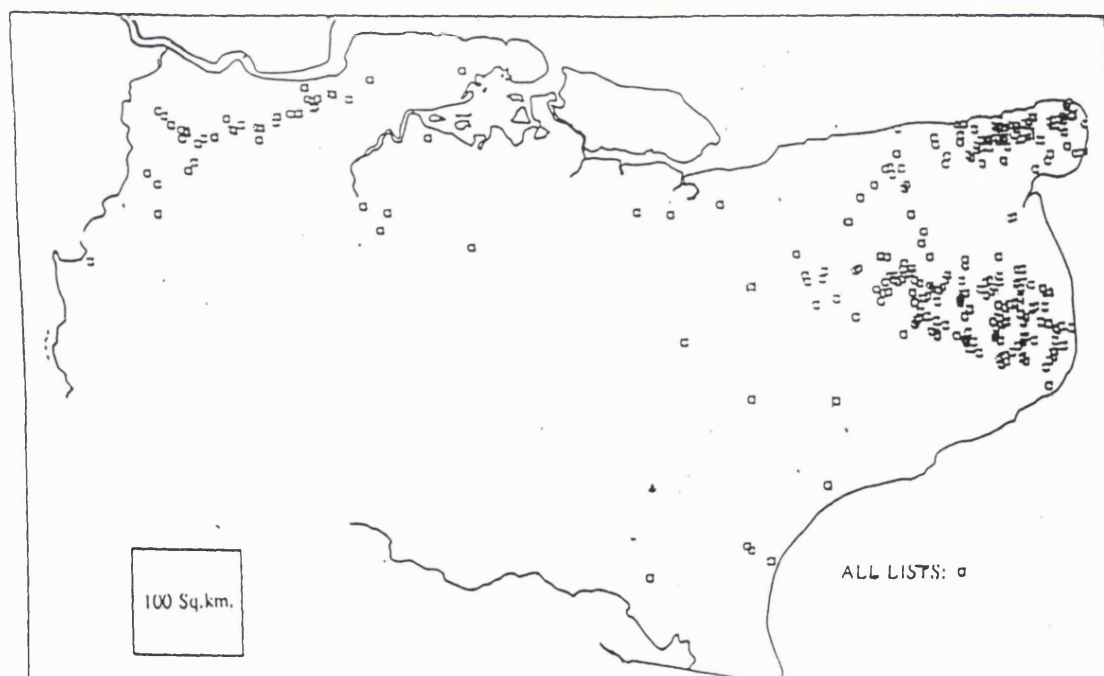


Fig. 2.12. The distribution of supposedly Prehistoric cropmark sites in Kent to 1991
 (Adapted from RCHME graphics)

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CHAPTER 3. THE DISTRIBUTION OF BRONZE AGE ROUND BARROWS

3.1. Introduction; Kentish barrows defined and described

By far the most numerous of Kent's prehistoric cropmark sites are the ring ditches. In the KSMR they are recorded in Lists 19, 20, 21, 22, and 23, and 51. Sites in Lists 19, 20 and 21 are interpreted as being the ditches around ploughed-off Bronze Age bowl, bell, and disc barrows, while those in List 51 are thought to be similar sites showing as large spots of continuous growth (maculae) when enough of the mound survives within the in-filled ditch to produce an all-over cropmark. Sites in Lists 22 and 23 are considered on the basis of their diameter (less than 10 m.) to be Dark Age Anglo-Saxon barrows. It will be shown that this assumption is not safe. Indeed, consideration of the twenty-eight ring ditches excavated in Kent to Autumn 1994, (see the Corpus Appendix 3.2) leads to the belief that many ring ditches in these lists are Bronze Age, and that in any case at least three types of prehistoric monument are present.

A concise history of barrow studies and excavations from William Stukeley in 1722 to the 1970s has been presented by Leslie Grinsell (Grinsell 1979). Conventionally, a round barrow is a dome-shaped earthen mound raised to contain or cover one or more inhumation or cremation burials, and ringed by a concentric ditch from which the mound material was excavated. Exceptionally, as in disc or saucer barrows, there may be an outer concentric bank; these types are however fairly rare. Lastly, pond barrows are a complete reversal of barrow design, as if their construction makes an important statement. In this type the mound is replaced by a bowl-shaped excavation, and the ditch by a bank. The external forms of the British barrow types have been shown in section by Paul Ashbee (Ashbee 1960, 24-29).

While the barrow-burial rite was an occasional practice of the Roman, Saxon, and Viking periods, the great majority of these monuments are attributed to the Bronze Age, say roughly 2000 - 600 BC. In Britain the rite evolves in the later Neolithic and is subsequently associated with the appearance of Beaker pottery and copper artefacts, this occurrence being thought to mark either profound social change, or constituting a new expression of social complexity. The elaborate Neolithic rituals of mortuary enclosures and charnel house chambers within long barrows, in some cases seemingly on a communal scale, are replaced by individual burials (Thorpe & Richards 1984), either beneath barrow mounds, or as unassuming inhumations with perhaps a marker post.

Since barrow building involves inordinate effort for the number of interments the monuments commonly contain, they are thought to represent the prestigious funerary rites of an

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elite. The identity of the prime individuals involved, whether a new class of entrepreneurial chieftains, or a priesthood evolving new symbols of power, is a matter of speculation (Barrett 1994). Whatever their social role, these persons could command communal effort on a considerable scale. As an illustration of the labour involved in barrow building, the writer designed a full-scale replica of a round barrow as a long term environmental experiment (see Appendix 3.1). Construction was monitored, and the person-hours expended carefully recorded. These data allow the relative importance of ring ditch sites in terms of human effort to be estimated, and the demographic implications of this can be discussed. A corpus of ring ditch sites excavated in Kent to 1993 is given as Appendix 3.2 and sections of the sites are shown in Fig. 3.1.

Types of ring ditch enclosures in east Kent defined:

a) possible small henge monuments

It is difficult to find a better term than henge to describe these enigmatic enclosures. They are circular enclosures of between 20 and 40 m. in diameter, often having one or more causeway entrances, or bearing evidence that such existed and were later slighted. Their ditches are always of truncated-V profile, between 3 and 4 m. wide by 2 m. deep, with flat floors about 1 m. across. Although in some cases there is evidence that a mound was raised within them covering a central and peripheral burials, this activity appears secondary, as either:

- 1) The mound material appears to have been gained by excavating one or more concentric internal ditches.
- 2) It was carried out by quarrying the ditch at a stage when it had largely infilled by natural processes.

The sites were therefore abandoned some considerable time before being adapted to a funerary function. As an example, at Site 3 (Lord of the Manor I) an internal horizon containing domestic Beaker sherds was cut by two internal ditches associated with crouched burials and a cremation contained in an urn of Food Vessel type. At the same time a causeway entrance through the main ditch was cut away. Sites in this category are listed in Appendix 3.2 as 1, 2, 3, 5, 6, and 8, also possibly 4. Elsewhere than in Kent, similar sites defined as 'henge-barrows' have been observed and recorded (Ashbee 1960, Grinsell 1941).

b) Conventional round barrows constructed as funerary monuments

These fall into two types:

- 1) Oval plan ditches cut in a series of segments. They appear to be associated with beaker burials and beaker sherds, urn-contained cremations, incense cups etc. Sites represented are: 9, 11, 20, 22, 23, 24, and 25. Sites 13, 14, and 29 may also belong in this group.

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- 2) Circular, sometimes double-ditched, and of V-section. They may have central urn-contained cremations, but are more often associated with crouched burials in pits cut in chalk or in ditch fills. Sites represented are: 6, 10, 17, 18, and 19. Site 12 is unique in being a pond barrow,

c) Non-funerary barrows

Such sites have been identified after excavation at West Heath, West Sussex, where of nine barrow mounds, only two held evidence of burials, (Drewett 1988), and in Kent at Ringwould (Site 14). They are presumed to have had cultural significance as territorial markers or the like (Drewett, 1988, 83). Sites that represent (or may represent) this type in the corpus are: 14, ?15, ?16, ?21, ?24, ?26, ?27, and ?28. It is of course possible that some of these once held burials contained in mounds above chalk level.

The way in which monuments in each of the above three classes of ring ditched enclosures form distinct groups when the relationship ditch diameter/volume is plotted is given in Fig.3.2. Work to date on barrows excavated in east Kent suggests that chronologically, classes a) b) and c) above divide into four period groups. Date estimates for the groups as outlined below are calendar (BC). Where these have been substantiated by radiocarbon dating the laboratory information is given in Appendix 11.

Class 1) Large circular ditched enclosures constructed in the Late Neolithic Period, the primary function of which was not funerary. The writer and N. Macpherson-Grant both of whom have excavated such monuments believe them to be ritual enclosures that can be described as henges. Ring ditch 1 (Appendix 3.2) belongs in this class as do Sites 2, 3, and 8. As yet dating evidence consists of finds and ditch stratigraphy. The latter demonstrating that the outer ditches of these monuments had infilled almost totally by natural processes before recuts and internal modifications associated with Beaker pottery take place. This sort of metamorphosis has been observed elsewhere than in Thanet, and has recently been discussed by Bradley (1998).

Class 2) Small oval-plan ring ditches constructed in five segments, and enclosing pits with crouched burials and beakers, Radiocarbon dates for two sites are c. 2000 BC (Appendix 11). They are sometimes associated with flat graves, and inserted inner ring ditches and ditch recuts in the monuments of Period I. Similar monuments attributed to the Late Neolithic period are to be found in East Yorkshire, with a sprinkling in Wessex and the Cotswolds (Kinnes 1979).

Class 3) Ring ditches with crouched burials and cremations, the developing east Kent barrow tradition of the Early - Middle Bronze Age, conventionally dated to c. 1800 - 1400 BC.

Class 4) Ring ditches of the Deverel-Rimbury period and a little later with cremations contained in Bucket Urns, conventionally dated to c. 1200 - 900 BC. They are comparable in size

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and ditch profile with the non-funerary monuments, and in one case, Ringwold, (Appendix 3.2 numbers 13-14) formed a pair.

Saxon barrows

In considering Kent's prehistoric ring-ditches, Anglo-Saxon barrows might at first seem to present a problem. When compiling the KSMR, RCHME adopted the policy that ring ditches of between 5 and 10 m. diameter were considered Anglo-Saxon (RCHME 1989, Tables 22 and 23). The danger of this assumption is illustrated by the presence among twenty-eight excavated prehistoric ring-ditches of four (Appendix 3.2 numbers 25 - 28), that could easily by their diameter be misinterpreted. East Kent has several Saxon barrow cemeteries such as that at Barham Downs. Cropmarks reveal the ring ditches to be characteristically about 7.0 m. in diameter, circular and annular. Such cemeteries are un-mistakable, as the barrows are so closely grouped that the ring ditches almost touch. Saxon barrow graves are also encountered in mixed-custom cemeteries among a variety of grave-structures. Taking seventeen examples from the Finglesham, Ozengell, and St. Peter's cemeteries, the ditches were all oval plan, penannular, and between 3.9 and 6.0 m. across at their widest point. In only one case was the ditch section wider than 0.60 m. and they are usually no more than 0.30 m. deep. With the large rectangular grave pit taking up most of the ditch interior, these graves exhibit (when the ditch shows at all) a most distinctive cropmark. On this evidence, it seems reasonable to accept ring-ditches of 8.0 m. diameter and above as Bronze Age unless there are good grounds for suspecting otherwise.

The labour involved in cutting ring-ditches

Using the record of labour expended in building the Monkton barrow replica (see Volume 2, Appendix 3.1 to this section, and Fig. 3.6) it is possible to calculate an approximation in terms of individual labour-days of the labour involved in barrow/henge construction. Estimates based on this are given below (Table 3.1). That the estimates are at least reasonable is evidenced by the fact that when in 1977 the writer excavated Site III at Lord of the Manor, Ramsgate (Site 5 in Appendix 3.2), 1200 individual labour-days were expended in removing a ditch fill of earth, hard chalk silt, and chalk rubble. Would a prehistoric workforce considerably out-perform volunteer archaeologists? Perhaps, but surely tribal labour did not partake of the cyclopean energy displayed by nineteenth century navvies, anthropological parallels¹ are debatable (Shaw 1970).

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Site No.	Volume cubic m.	Labour days	Site No.	Volume cubic m.	Labour days	Site No.	Volume cubic m.	Labour days
1	508	1814	11	154	551	21	60	216
2	409	1461	12	221	791	22	23	81
3	282	1007	13	no data	-----	23	95	339
4	443	1583	14	no data	-----	24	47	169
5	319	1141	15	143	510	25	14	48
6	252	900	16	41	146	26	45	163
7	166	592	17	74	266	27	45	163
8	295	1055	18	295	1043	28	8.5	30
9	202	724	19	18	67	29	71	256
10	52	188	20	102	365			

Table 3.1. Estimates of the labour (person-day) required to cut ditches in hard chalk

At these estimations the construction of the small henge-type monuments required considerable collective effort, the local community having to keep a labour-force of ten or so at the site for something like a hundred days. In the case of a barrow of quite modest dimensions, it would seem that the person interred was the subject of obsequies requiring a labour outlay far beyond the recourses of their immediate family. The implication of this being that the bereaved commanded a sufficient labour pool, perhaps by means of family wealth or religious - administrative status.

3.2 The distribution of barrows, barrow groups, and barrow cemeteries in Kent

Chapter 2 showed that the distribution of all ring-ditch cropmarks (for convenience hereafter described as barrows), is very localised. Of the 739 sites, 356 are in the Sutton Wedge area, and 315 in Thanet. Only 68 (9.2%) being found throughout the rest of the county, mostly on the high ground west of the Medway. Within the two barrow-rich areas, these sites appear singly, as groups, and in 'barrow cemeteries', a pattern indicative of the density and nature of human settlement in these landscapes, and the major differences between them.

Before proceeding to assess the two landscapes, critical consideration of the cropmark data is necessary and some rules must be drawn up. Firstly, both areas are scattered with lone

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barrows, pairs, and what might seem to be groups spaced a few hundred metres apart. In Kent barrows were being constructed throughout much of the Bronze Age. Calibrated radiocarbon dates from Sites 25 and 17 (Appendix 11) were Cal. 2027 BC and Cal. 980 BC respectively (Appendix 11). There is room enough in that time span for a number of monuments to be individually constructed within a given area, to erode with plough and weather, or to be disguised by encroaching trees. Thus unless possessing oral traditions, new builders may have had no idea of the presence of earlier barrows. Nor can we assume that the ubiquitous grassy mounds dotting their hills were objects of any consideration. Unless barrows cluster closely together, or are arranged in linear progression or geometric pattern, contemporaneity cannot safely be assumed.

A glance at plotted cropmarks in the two 'Barrow Landscapes' of Kent (see Fig.3.3) at once reveals clusters usually referred to by the undefined synonyms 'barrow groups' and 'barrow cemeteries'. The writer here offers definitions for both, which albeit arbitrary, fit the data well. In application there are few if any borderline cases, and the distinction between group and cemetery is visually obvious on the cropmark plotted maps. The distinction drawn between barrow groups and cemeteries is based on the composite of numbers, distance between barrows, and a maximum joining distance allowed for outlying components. Thus a group may hold as many barrows as an adjacent cemetery, but it is attenuated whereas the cemetery is concentrated. The definitions are:

A barrow group:

Three or more barrows spaced no more than 200 m. apart, although a maximum joining distance of 300 m. is allowed for sub-groups and outlying singles. Their morphology may be:

- a) Nucleated, clustering around a central barrow .
- b) Area, evenly dispersed throughout an area.
- c) Linear. As a special case, 'attenuated linear' groups may have barrows spaced 300 m. apart.
- d) Geometric, arranged in a recognisable pattern. *e.g.* a double row.

Such groups could represent the use of a favoured location such as a hilltop or ridge, or the arrangement of the barrows may respect a tradition (linear, geometric), or relate to territorial boundaries.

A barrow cemetery:

five or more barrows spaced no more than 100 m. apart, with a maximum joining distance of 200 m. Cemetery morphology may be nucleated, area, linear, or geometric. These cemeteries may represent the concentrated and continual use of a designated area by a populous settlement, and/or a fairly dense peripheral population.

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Super cemeteries:

This term has been adopted to describe concentrated clusters of groups and cemeteries occupying areas of distinct geology and topography, and separate from other groupings.

3.3. Landscapes: The Sutton Barrow Landscape

The area of cropmark concentration referred to herein as the Sutton Wedge occupies a part of the chalk upfold of the North Downs. It does not extend to the boundaries of the chalk exposure, the great cropmark display being contained in an area of about 234 square km. lying along the truncated centre and north-eastern downfold of the anticline between the Stour Valley near Canterbury and the Channel cliff-line from Deal south to Dover. Within this, the barrow landscape is smaller still, the barrows being distributed throughout a roughly elliptical area of about 151 square km. (Fig 3.3). In elevation most of the barrows are situated at between 45 m. and 90 m. OD, although some cemeteries and groups along the northern periphery are as low as 15 m. OD.

Single barrows:

Of the 356 barrows revealed as cropmarks in the Sutton Wedge landscape, 198 (55%) are single isolated monuments. These are fairly evenly distributed, save for an empty strip running north-east between Nonington and Staple.

Barrow groups:

The Sutton groups range in number of barrows from three to six, and in area between one-third and ten hectares. Few are situated more than a few hundred metres from a cemetery.

Barrow cemeteries:

Numbers of barrows range from five to eight, and cemetery areas are between one and eight hectares. There are about as many of the Sutton barrows in cemeteries (22.4%) as in groups (23.0%).

The cemeteries and groups are rather localised, occurring in two concentrations. By far the largest cluster lies within a 4.5 km. radius of Sutton. It consists of twelve cemeteries and fifteen groups. Where in these cemeteries and groups the barrows arrangement is linear, or a distinct axis can be seen, there is a pronounced bias towards a north-easterly alignment, this orientation being shared by 61 % of the cemeteries and 71% of the groups. One reason for this would appear to be topographical. An examination of the contour map shows the downland around Sutton to be cut by a number of valleys, all running north-east into the syncline once

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filled by the Wantsum Channel. The orientation of the barrow cemeteries and groups may therefore be to a certain extent determined by their occupying the ridges between these valleys.

The smallest cluster is situated east of Patixbourne and Kingston on the downland rise above the valley of the Nail Bourne at an elevation of roughly 45 m. It consists of one cemetery and six groups. Of these seven, two have no discernible axis, one is aligned north-west, and four are on the north-eastern orientation. This although there appears to be no contributing topography as in the case of the eastern grouping around Sutton.

3.4. The Isle of Thanet Barrow Landscape

Unlike the Sutton Wedge area which lies within secure land boundaries except for about 6 km. of chalk cliffs north-east of Dover, Thanet has suffered considerable weathering and human diminution over the last 4000 years. North, east, and south of the Island, the cliffs have been eroding at a rate estimated as at about 30 m. per century (Perkins 1987a), so that something like 1.2 km. of coast has been lost in a band of 21 km. In area this is 25.2 square km. (9.27 square miles) about 20% of the original island.

To the west, where the chalk dips into a syncline, much land was at first taken by rising sea levels after the last glaciation, so forming the Wantsum Channel, and later buried under alluvium as the channel both naturally silted and was reclaimed. Thanet's barrow landscape area occupies therefore all the existing chalk anticline, including areas obscured by deep deposits where cropmarks cannot form, although barrows may be present.

Single barrows:

Fifty-nine of Thanet's current register of barrow cropmarks are isolated monuments, representing 15% of the Island's total. The barrows are thinly but fairly evenly distributed throughout Thanet, being scattered across the central plateau where there are comparatively few cemeteries or groups. Over half of Thanet's double and triple ring ditched barrows occur as singles. When found in cemeteries they are either central, or terminal to linear concentrations, suggesting that these large and complex monuments became foci for barrow building activity.

Barrow groups:

There are twenty-two barrow groups in Thanet, ranging in number of barrows between three and ten, and in area from one to thirty hectares. Fourteen of the groups are situated on west or south-west facing downland slopes overlooking valleys or the coast. One group (Appendix 3.3. East Northdown, List II, 7) is on a gentle north-east slope cut by the cliffs of Foreness point,

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and six (Appendix 3.3, List II, 11, 15, 17, 18, 20 and 22) are on comparatively level ground within Thanet's central plateau. One group (Appendix 3.3, Minnis Bay, List II, 2) is on low level ground close to the shoreline, and would have been no more than a few hundred metres back from it when the barrows were constructed. No particular orientation is detectable among the groups, and 54% have no discernible axis. In all but four cases the groups accompany a barrow cemetery.

Barrow cemeteries:

Thanet has eighteen barrow cemeteries. In numbers of barrows they range between five and thirty-three, and in area between two and forty-seven hectares. In general the cemeteries and their associated groups are situated on west or south-west facing downland slopes. These are above the coastal plain of the Wantsum, above the Brooksend-Acol, Dane, and Shottendane one-time river valleys, and Hollins Bottom, a dry valley cut by the cliffs south of Ramsgate. Two cemeteries are, exceptionally, on north-east facing slopes. One (Appendix 3.3, Updown Farm, List I, 9) lies above the Dane river valley. The other (Appendix 3.3, East Northdown, List I, 14) is a special case in that it and its associated group are arranged among a system of field ditches, enclosures (three of which may once have enclosed long barrows) and the ubiquitous and enigmatic 'staple enclosures'. A plan of these cropmarks produced by the writer appears as Fig. 2 in the account of the excavation of one of the East Northdown barrows (Smith 1987). Four of the cemeteries (Appendix 3.3, List I, 9, 10, 17 and 18) are situated within Thanet's central plateau on fairly level ground. The cemeteries appear to have no particular orientational bias with 44% having no discernible axis.

Super-cemeteries:

The Thanet landscape holds six large clusters, containing between them most of the islands forty cemeteries and groups, only four cemeteries and six groups being isolated. This situation is illustrated by Fig. 3.4. The clusters are:

A) Monkton - Minster:

This contains Barrow Cemeteries 3, 4, 10, and 16, and Barrow Groups 1 and 18, in all 85. The total area 4.4 square km. The maximum distance between any two component cemeteries or groups is 500 m. This cluster runs for 4 km. along the ridge and slope of a downland escarpment that descends to the one-time shoreline of the Wantsum sea channel. The barrows share their east-west line with ancient 'Dunstrete' (the A253) and with a linear cropmark that was recorded by HBMCE workers as a possible cursus. It was remarked that some of the barrows appear to be aligned with the cropmark.

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B) Minnis Bay - Brooksend:

Barrow Cemeteries 5, 6, 7, and Barrow Groups 2, 16, and 19. belong in this cluster of 47 barrows, in a total area 2.73 square km. The maximum distance between any two components is 700 m. Beginning at Minnis Bay the barrows occupy a gentle south-west facing slope bordering what was once the mouth of a tidal creek. Where the creek narrowed into a small river valley (the brook ran until last century) one group is on the south bank. The other barrows are spread along the northern escarpment nearly to Acol where the valley peters out. Just south of the convergence creek and valley an oval group of cropmarks several hundred metres across indicates a dense concentration of pits, hut circles, and ditches.

C) Dane Valley - Foreness:

This is comprised of Barrow Cemeteries 11, 13, 14, and Barrow Groups 7, 8, 9, and 11, totalling 57 barrows in an area 3.98 square km. The maximum distance between any two components is 700 m., but there is photographic and other evidence that a number of barrows were destroyed unrecorded during building work in the 1960s. These would have united the three cemeteries. Moving north-west, the barrows occupy both the southern and northern slopes of Dane Valley, (a river valley until the eighteenth century), and spread northward up over a downland ridge and down a gentle slope to the cliff-line at Foreness Point. In this last kilometre the barrows share the landscape with ditched enclosures, three of which may have belonged to long barrows.

D) Ozengell - Pegwell:

This contains Barrow Cemetery 1, and Barrow Groups 4, 13, 14, in all 37 barrows within a total area of 1.15 square km. The maximum distance between any two components is 300 m. The barrows are distributed along the crest and false crest of a downland escarpment east of a broad shallow valley known as Hollins Bottom. This runs south-east for about two kilometres and is cut by the cliffs of Pegwell Bay. Four thousand years ago however, before the loss of some 1200 m. of land to erosion, the valley floor probably descended to the beach. A sondage cut by the writer during evaluation work in 1988 revealed stream-bed strata with prehistoric sherds above the chalk of the valley bottom under 2.5 m. of colluvial deposits.

E) St. Nicholas:

This is comprised of Barrow Cemetery 2, and Barrow Groups 21 and 22 containing 24 barrows in a total area of 1.13 square km. The maximum distance between any two components is 600 m. The barrows occupy a gentle downland rise from the alluvial plain of the former Wantsum Channel and lie parallel to the shore-line of Roman times. The rise of the chalk down is cut by a valley watered by a spring-fed stream. Where this enters the alluvium at Down Barton, the line of

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the old shore is broken by what must have been quite a large natural harbour, and it is recorded that the monks of St. Augustines had a dock there in the thirteenth century.

F) Shottendane Valley:

This cluster contains Barrow Cemeteries 8, 15 and Barrow Groups 5, 15. It is comprised of 26 barrows in a total area of 1.66 square km. The maximum distance between any two components is 700 m. It is situated on both escarpments of a valley running north-east. At Margate the valley swings north-west, exiting to the sea through what was until the mid-nineteenth century a marsh some 50 ha. in extent which gave Margate (Meregate) its name. A spring-fed stream once flowed down the valley, and a remnant of this survives as the Tivoli Brook.

3.5. Discussion

The two barrow landscapes of east Kent constitute impressive phenomena. In area concentration they are directly comparable with the more densely barrow-populated areas of Wessex as presented by Cunliffe (Cunliffe 1993, Fig. 3, 13.). The latter figure shows barrow densities depicted within 'contours' enclosing areas with more than two barrows per sq. km. and more than five per sq. km. When the east Kent landscapes is so treated, then the whole of the Sutton landscape falls within the first contour, and the whole of Thanet within the second, (Fig. 3.5). Indeed the Thanet landscape seems to have no equal in terms of density. Even the area extending ten kilometres on all side of Stonehenge (Cunliffe 1993, Fig. 3.8) only has a barrow density of 0.80 barrows per sq. km. (333 barrows in 414 sq. km.). Compare this with the Thanet density of 5.89 barrows per sq. km. (380 barrows in 64 sq. km.). Of course the Kent landscapes lack the accompanying great monuments found in Wessex, but imagine the appearance of Thanet's rural landscape if the barrows had retained their mounds.

As can be seen from foregoing data and Table 3.1 below, the Sutton and Thanet barrow landscapes are dissimilar. Over half the Sutton barrows are lone monuments, and the concentration of barrows per square kilometre is only half that of Thanet. A typical Sutton cemetery or group is smaller in both number of barrows and area than its Thanet counterpart. This is most marked in the cemeteries, which on average have less than half the barrows and are only one fifth of the area of those in Thanet. Their morphology is predominantly linear, whereas that of the Thanet groups is overwhelmingly 'Area' type. Unlike Thanet's cemeteries and groups which have no particular orientation, those in the Sutton area have a marked bias towards a north-

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east - south-west alignment, although this may have the topographical explanation given previously.

What do the barrow groupings mean in social terms? An obvious interpretation of isolated barrows or pairs is as marking the transient existence in the landscape of a small community, perhaps a farmstead, whose inhabitants were sufficiently numerous as to afford the effort of constructing a monument. Similarly, barrow groups might be situated at the focus of several such small communities, and barrow cemeteries might hold the elite dead of communities that were larger (villages) or occupied for longer, or both. An imponderable factor in the spatial distribution of barrows is, what impact did the location of the monuments have on husbandry. Would they have been seen as wasting land in the deep easily tilled valley soils, or a welcome presence, homes to ancestor guardians of the crops? Were they relegated to the thin soils of chalk upland pastures? On the existing evidence this last would seem likely.

The Sutton landscape; an interpretation

The Sutton barrow groups and barrow cemeteries form two clusters. That to the east makes demographic sense, in that during the period of barrow construction, it overlooked a fertile and well watered coastal plain. In part this fronted the English Channel, curving north-west into the Wantsum Channel. Although later subject to marine inundation, from which it was reclaimed by nature and human agency, there is abundant evidence of human occupation during the Beaker period. Settlement remains in a fenland setting appear widespread (Chapter 7. 4.). Communities so situated had only to follow streams feeding the fens up through the chalk valleys to reach the ridges where the cemeteries and groups are located. One or two cemeteries on the south-west fringe of the cluster may however have served communities in the valley of the Dour which runs north-west from the breach in the cliffs at Dover.

A much smaller western cluster occupies the eastern rise of the valley of the Nail Bourne, a stream that becomes the Little Stour. The one barrow cemetery and six barrow groups are situated on high thin-soiled chalk downland overlooking the well watered meadows about Bekesbourne and Kingston. It is interesting that while one would expect a similar density of barrow distribution in the Stour valley between Chislet and Wye, few in any have been recorded there. Perhaps this seeming cessation of barrows, and therefore presumably of barrow-building communities, has a topographical explanation. Modern OS maps show large areas of woodland surviving on both sides of the Stour valley, the Blean, Challock, and Lyminge forests being still some 103 square kilometres in extent. These could be relics of the eastern boundary of Anderida, Kent's great primeval forest.

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To summarise, large areas of fertile downland in the Sutton Wedge area hold only isolated barrows. So that by interpretation, much of the area, if exploited at all by humans during the Early Bronze Age, was occupied only by small and transient communities, perhaps single farmsteads. The cemeteries and groups align with major river valleys, or valleys running down to the sea. A picture emerges of a population concentrated on the coastal plain with a few river-side settlements. With sheltered well watered farmland, fishing, trade, and salt extraction, these communities relegated the chalk hills to winter grazing and the monuments of their ancestors.

The Thanet barrow landscape; an interpretation

As described above, the Thanet barrows cluster densely above either the sea shore, or valleys leading to the sea. Cemetery morphology may relate to movement through the landscape as much as to settlement location, and in some areas cemeteries may have been central to scattered communities which they served. Thanet's island identity and topography placed constraints however on where the barrow builders could live. Unless they crossed from mainland Kent to construct the monuments (a possibility touched on later in this chapter) space for settlement between the cemeteries was limited, (Fig 3.4). If the number of barrows reflects population, then topographical necessity suggests fairly concentrated settlement in the fertile deep-soiled valleys below the cemeteries, or on the colluvial slopes between downland and shore where fishing and gathering could have been important activities.

What can be deduced demographically from the number of barrows? This question was examined by Cunliffe (1993, 117), who for Wessex accepted a barrow-buried population of 16,000 over period of say 2500-1500 BC, sixteen burials per year. He rejected this death rate as far too low to represent total deaths in any one year, as taking an annual death-rate of 40 deaths per 1000 as reasonable, the total Wessex population would have been no more than 1000! He goes on to say:

"The conclusion must surely be that the barrows represent the burial of only a small segment of the population presumably selected by rank or status, the rest being disposed of by some method of which little recognisable trace remains".

For the Thanet barrows we may reasonably follow the same path, while stressing that any figures arrived at are estimates derived from approximations.

Thanet's present known barrow population is 380. Cunliffe proposes that 25% of the Wessex barrows will have been destroyed without trace by ploughing and other anthropogenic factors. Thanet's archaeological and historical evidence points to early clearance and to heavy and sustained arable farming over the last four thousand years, so that the percentage of barrows

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lost by these means should be at least as great as in Wessex. If 25% is accepted as a reasonable figure for destruction, then the number of Thanet's barrows goes up to 475. To this must be added an estimate of those lost with the erosion of a 25 sq. km. coastal strip. At the Thanet concentration of 5.89 barrows per sq. km. this gives 147, bringing the estimated Thanet total to 622. Excavation has thus far given a Thanet average of two burials per barrow, so that during say, 1000 years of barrow construction there were 1244 burials, 1.2 per year. Taking an annual mortality rate of 40 per 1000, a living 'barrow-rite elite' population of just 30 persons is indicated. That this was the total population is an absurd proposition, as it would not have a labour force big enough to bury its dead.

Before we can construct a demographic model, we must take as a starting point a factor that could never be determined, and must be remembered to be an estimate, that is, what did the individuals considered worthy of the barrow-rite represent as a percentage of the whole population? Their numbers must surely have been small, and limited to primary members of an elite or elect group and their immediate family. While beneath 'barrow elite' rank there could be considerable social stratification, the elite would confine the symbols of power to a narrow lineage as self preservation. In any polity a venerated line of leaders can, by proliferation of its class or cast, quickly become resented as an over privileged minority. The legitimisation of hierarchy in Early Bronze Age Wessex has been considered by Shennan (1982).

Very little theoretical research has been published on this subject, but Renfrew and Bahn (1991) quote C. Peebles' work on a fifteenth century Mississippian Culture enclosure at Moundville, Alabama. At this site 2053 burials were examined, and considerable social stratification was observed in terms of grave goods and burial practice. Of the total of burials only 117 graves (6%) were in Peebles' 'Class A', being buried under mounds and with copper tools and ornaments. This is useful evidence albeit from another continent and era. Although there are various Neolithic studies, it is unfortunate that in Britain we lack the physical remains of a Bronze Age general populace to allow similar calculations, however the writer feels it reasonable to suppose that the barrow elite constituted something in the order of 5% of the community.

The above figure ($5\% = 30/0.05$) raises the Thanet population estimate to 600 persons. As to the proportion of males to females among the burials, this has to be regarded as more or less an imponderable. Many of Britain's barrows were opened in the pre-scientific era, and in any case Bronze Age skeletal material is often in such a condition as to render the determination of sex rather subjective. Grave goods evidence would seem to indicate that the majority, say 75% of graves containing them were male burials (Ashbee 1960, Clarke 1970), but this must be balanced by the fact that large numbers of barrow burials are un-accompanied by artefacts. What

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can be said is that the burials are predominantly those of adults. Tables of mortality among the English rural community of the seventeenth century (Cox, 1976, 173) show that hardly more than 50% of the population survived past twenty years of age, this bringing our theoretical Thanet population to 1200.

There is yet another factor to consider. Seven flat-grave Beaker burials have been found in Thanet, two with multiple inhumations. They can be positively identified as flat-graves and not relics of ploughed out barrows by factors such as their complete departure from the local barrow grave tradition in terms of depth, shape, care of construction, and the presence of wooden planked coffins (Canterbury Archaeological Trust in preparation, 'A253 Improvements'). All were found by pure chance, as were also four of the nineteen barrows excavated in the Island, the others all being investigated as observed cropmarks. Many more flat-graves may exist or have been destroyed un-noticed, as construction workers would find them hard to spot. These two admittedly small samples suggest that the barrow rite elite may have found flat graves an acceptable alternative. If so, then our elite may double in size and the population estimate expands to 2400 persons living in the Island at any one time during the barrow building period. All this is extremely conjectural. The elite could have been considerably greater than 5% of the population, or much less. If only 2%, then the logical progression followed above gives a population of 6000.

Is an Early Bronze Age population running into thousands reasonable in terms of space and food production? It would appear so. Thanet's downland soil is of a highly productive and self-perpetuating rendzina profile, light and easily cultivated. From Tudor times the island has exported grain, and inshore fishing was carried out on a large scale until the second half of this century. The writer's excavations and researches in the Pagan Jutish burial grounds in Thanet (Perkins 1991b and Ozengell Anglo-Saxon Cemetery in preparation) has produced direct evidence from grave numbers of an AD 600 population of 1500 persons. This supposes that the whole population used these cemeteries, and that no sub-group co-existed using the cremation rite or separate and undiscovered cemeteries. Neither does it allow for constant migration into mainland Kent. Some 250 years later, Bede (*Ecclesiastical History of the English People*, Book I, Chapter 25) describing Thanet stated that it was home to 600 families, presumably something between 3000 and 6000 persons. Muster rolls for a Thanet Militia at the time of the Armada are indicative in that only fit males between say, 16 and 50 years of age would be of use, and the numbers suggest a population of about 5000. One hundred and thirty years later John Lewis (Lewis, 1723, 25) calculated the Thanet population as 8800 souls, and in 1801 a census registered 12000 inhabitants.

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The high concentration of barrows in Thanet compared with the Sutton area and Kent in general admits of two explanations:

- i) That they held the dead elite of much of Kent, brought over into Thanet for burial in what was regarded as a sacred island. This possibility considered as an explanation of the origin of 'Thanet' as 'Thanatos' has already been discussed (Elworthy and Perkins 1987). Were this so however, would not the barrows share their landscape with other larger manifestations of religious belief, sites similar to the great monuments of Wessex. Apart from the supposed cursus that cuts cemetery-group cluster A, no site in that order of magnitude has yet been discovered.
- ii) The way in which the Thanet barrows are distributed suggests that while some of the inhabitants were dispersed in farming communities, the great majority of them lived adjacent to their cemeteries, along the shore or in river valleys leading to the sea. If the population numbered anything like the estimate above, say 2000 - 3000 persons, then a likely scenario distributes the people in a few fairly large villages. The settlement pattern that emerges is very similar to that known for Dark Age and Medieval Thanet, and what is suspected for the Later Bronze and Iron Ages, see Chapter 5. Given this picture, it would not seem unreasonable to conjecture that the barrow-builders were, like their Medieval descendants 'fishermen with ploughs', on their way to becoming seamen and merchant venturers.

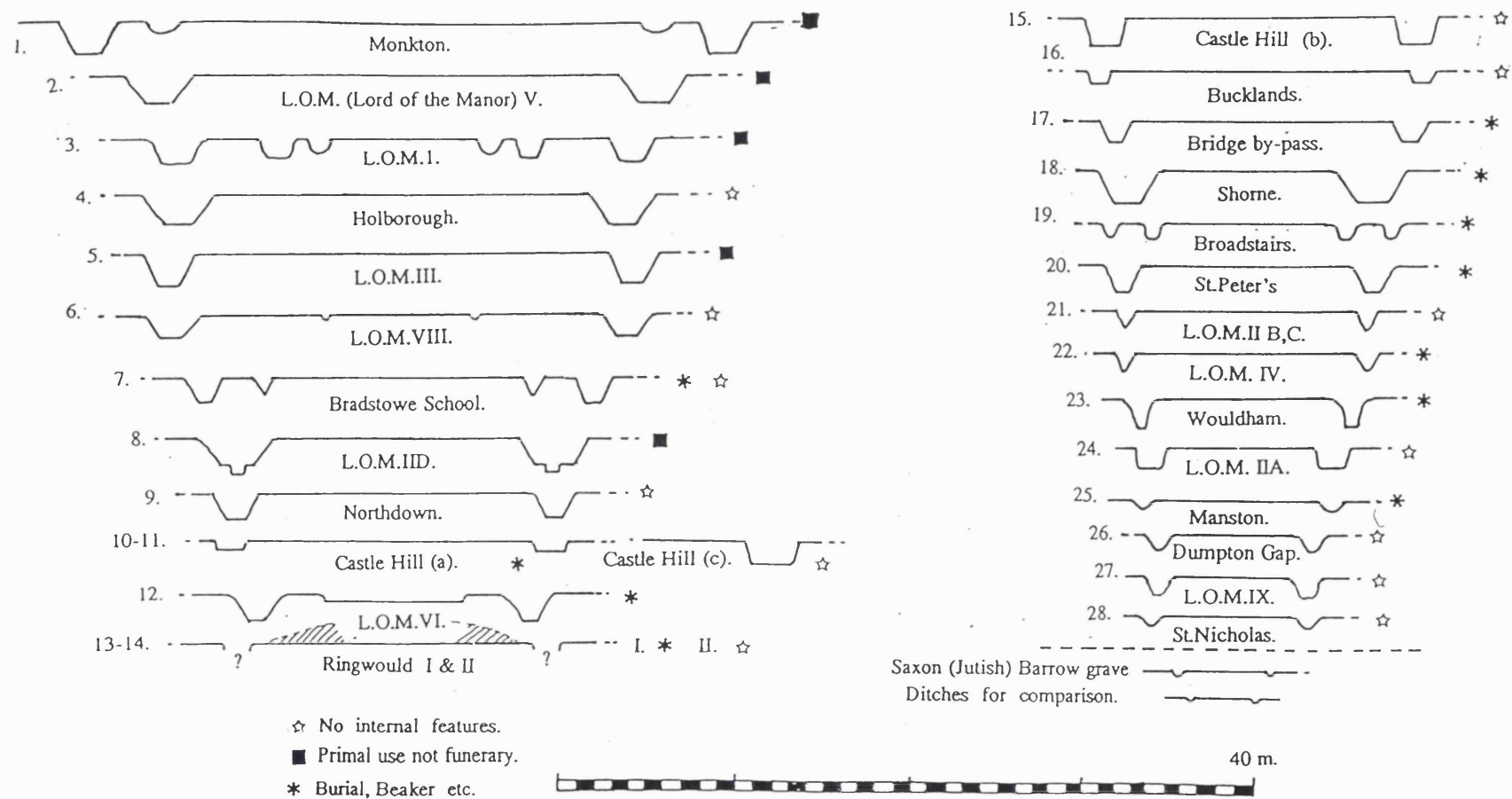


Fig. 3.1. Median sections of round barrows and other ring-ditched enclosures excavated in Kent to 1994

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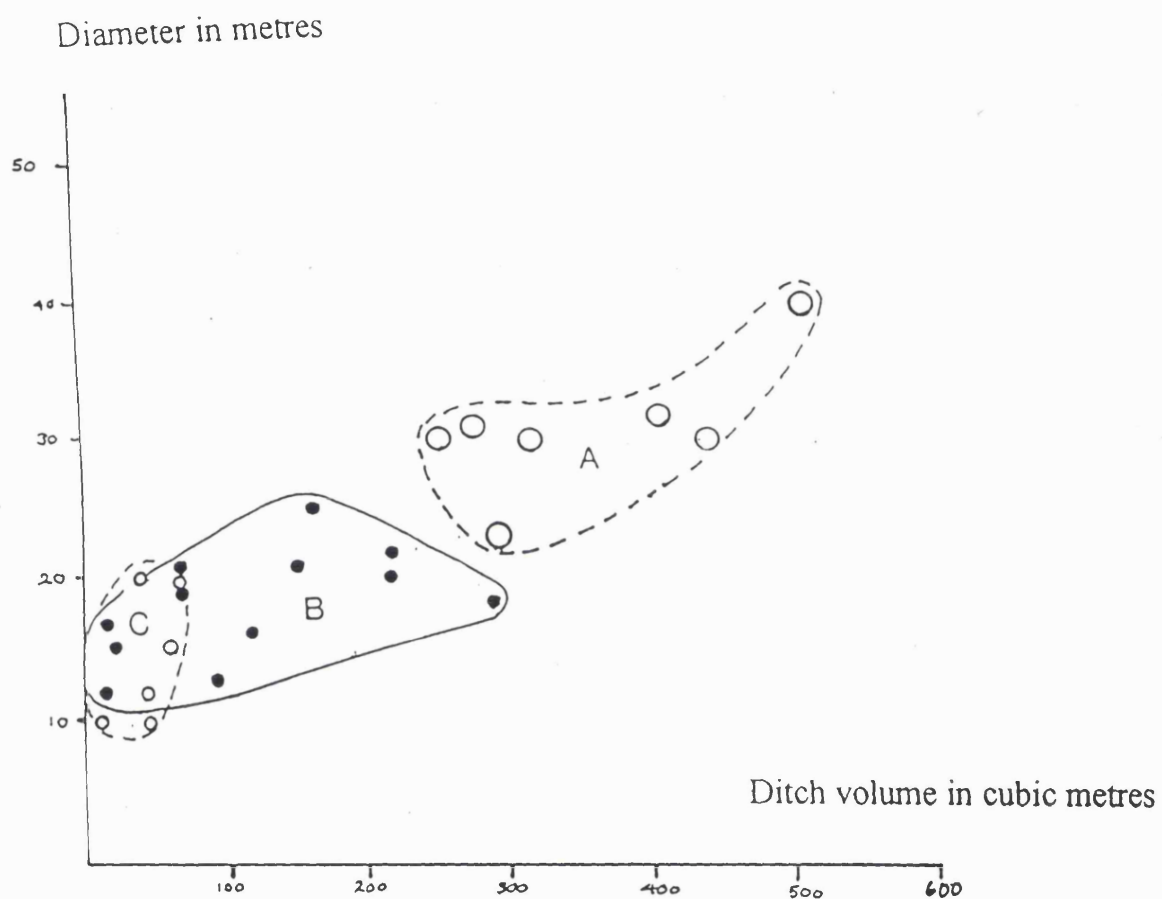


Fig. 3.2. Excavated round barrow and ring-ditched sites in Kent, writer's types A, B, and C, shown as a scattergram of the relationship between ditch diameter and ditch volume.

Key: Over 20 m. diameter, primary function not funerary ○
 Confirmed as funerary round barrow ●
 No chalk-cut internal feature, non funerary? □

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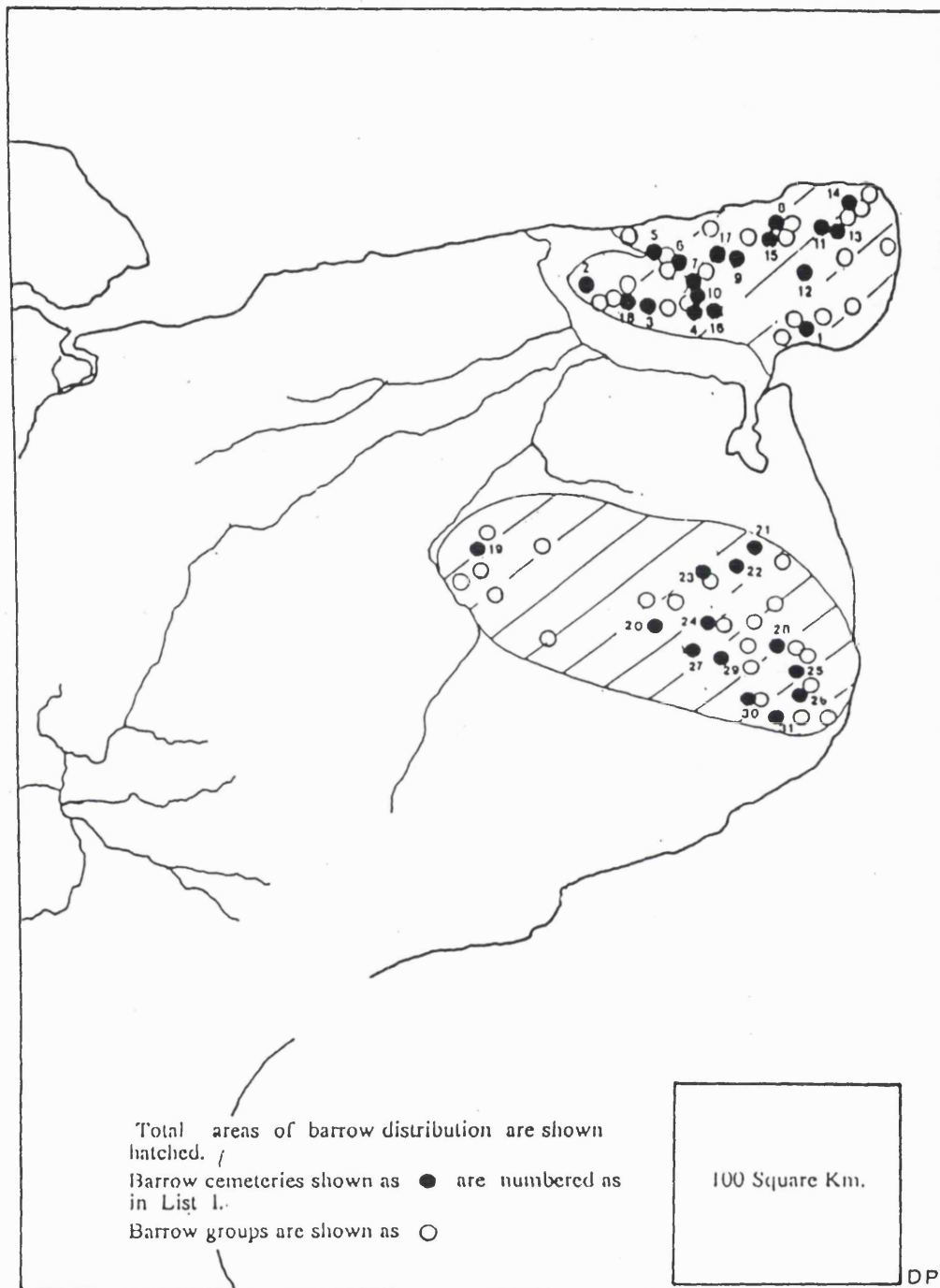


Fig. 3.3. The two barrow landscapes of Kent, Thanet and the Sutton Wedge.

Based on ringditch cropmark identification

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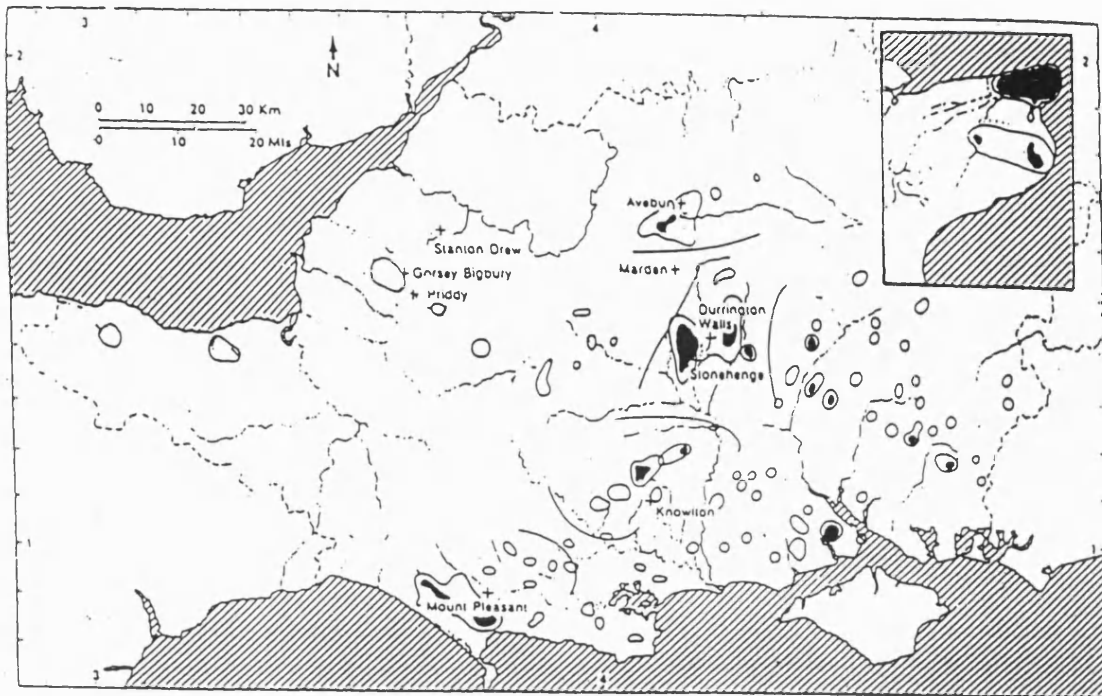


Fig. 3.5. Barrow densities in Wessex compared with barrow landscapes of east Kent : inset to same scale. Contours reflect more than two barrows per square km. Solid black areas indicate a density of five or more barrows per square km. Reproduced from Fig. 3.13. (B. Cunliffe 1993)

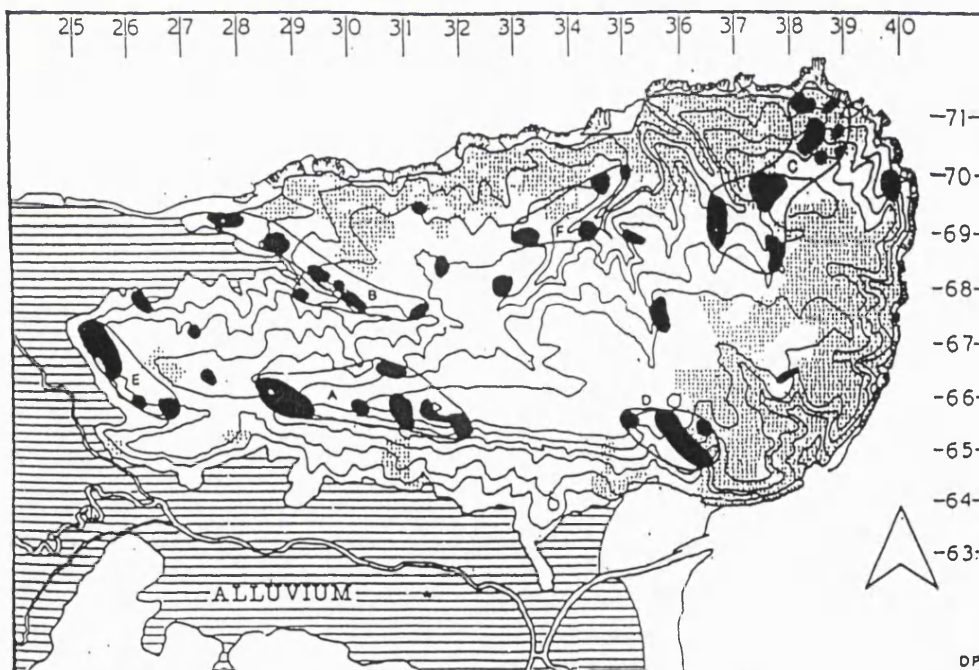


Fig. 3.4. The barrow "super-cemeteries" of the Isle of Thanet. These are shown in bold outline enclosing cemeteries and groups of barrows (solid black) and single barrows (not shown). Conurbation areas are shown as stippled. Scales : Frame in kilometres. Contour intervals are 25 feet (7.6m).

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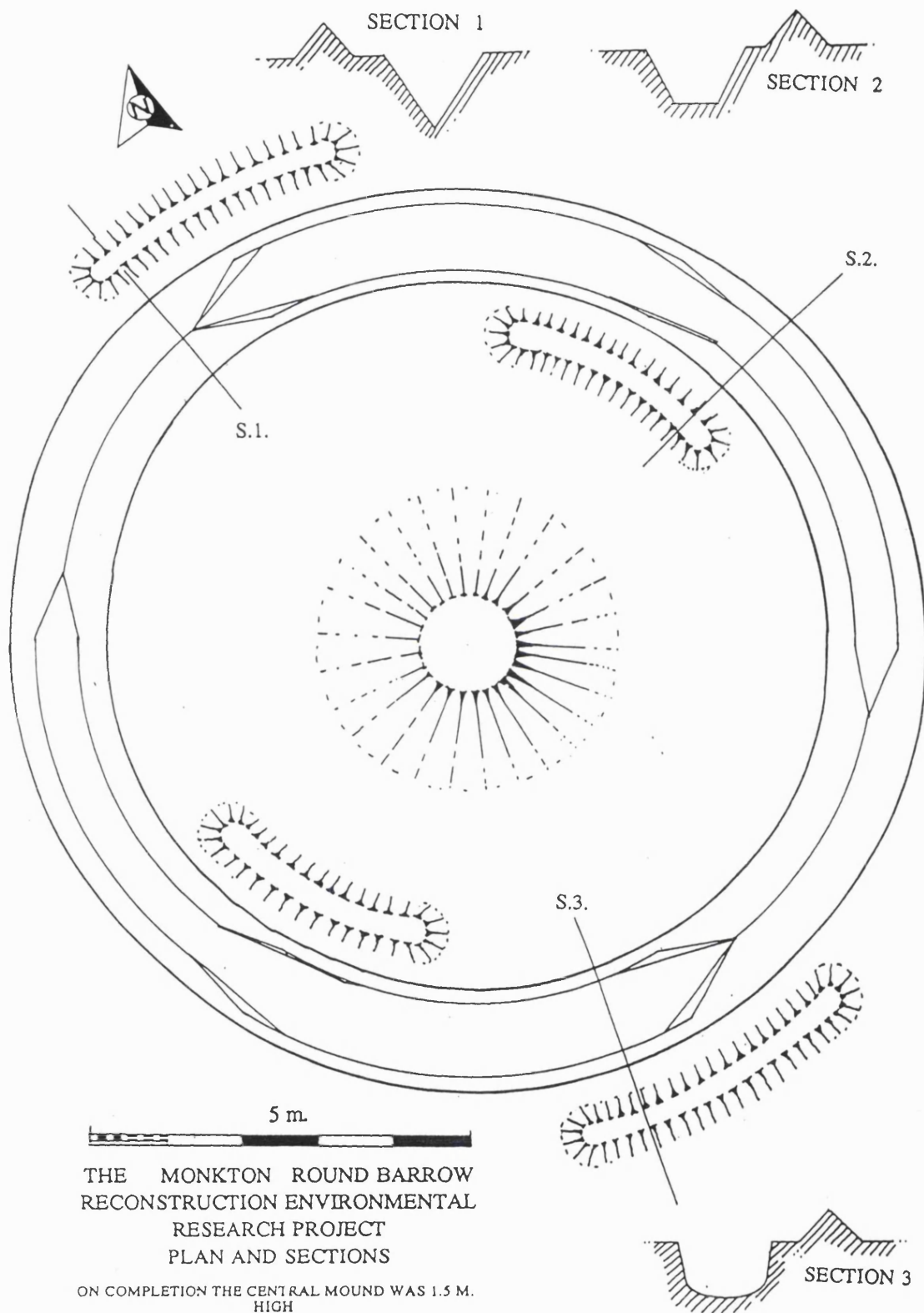


Fig. 3.6.

CHAPTER 4: THE DISTRIBUTION OF EARLY MIDDLE AND LATE BRONZE AGE BRONZE FINDS IN KENT

4.1. Introduction

The evidence for a cultural focus considered in this section consists of the recorded distribution of Bronze Age artefact finds throughout Kent to 1994 (published sources) and Thanet sources (both published and unpublished) to 1998. For sources lists and acknowledgements, see Volume 2, Appendix 4.2.

In planning this chapter, the writer considered including iron objects found in Late Bronze Age contexts (hoards), and Iron Age bronzes. In the case of the former, there are too few finds to have significance. For the latter, a few high prestige objects are recorded, among them mirrors and grave goods (Parfitt 1998). These apart, the recorded and museum-housed corpus of more common artefacts has been rendered un-representative by the vast and growing body of metal detector finds. To attempt to obtain access to, and to assess this material, just in east Kent, would be an enormous undertaking.

The corpus of Early Bronze Age bronzes for Kent is mainly a slow accumulation of chance finds made over 240 years, only five finds (17%) being comparatively recent, two of them by metal detector, and three during archaeological excavations. Kent's Middle and Late Bronze Age distributions have however increased enormously over the last two decades. While the paucity of Early Bronze Age finds results from special factors discussed below, the recent flood of bronze hoards and single finds results from metal detectorist activity, the 'Metal Detector Revolution' see Appendix 4.1.

In the English Heritage - Council for British Archaeology study of the metal detector phenomenon, *Metal Detecting and Archaeology in England*, (Dobinson and Denison 1995, henceforth MDAE), it is suggested that metal detecting has brought something in the order of a tenfold increase in the corpus for many classes of artefact (MDAE, x). That this estimate is reasonable for Kent is evidenced by the new recorded distributions of Celtic coins (MDAE, 41).

The Middle and Late Bronze Age Kentish finds distributions presented in these pages are very recent and radically different up-dates of those published by Champion (1982), and they are open to twofold criticism on grounds of bias. Firstly, as pointed out in the study (MDAE, 35) the writer has engaged in active liaison with detectorists since 1978, and has pioneered the use of detectors in a predictive role (MDAE, 36). It may be asked:

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- a) To what extent have these activities weighted distribution evidence towards east Kent and Thanet?’
- b) Are the finds distributions being shaped by the demography of detectorists. In simple terms, what sort of person is the typical detectorist? Where does he/she live? Are the bronzes only being found within convenient range of, and peripheral to, concentrations of detectorists organised in clubs?

These questions will be addressed in discussion. To throw further light on them it is necessary to examine the evolution and contemporary status of the pastime in Kent. An excellent overview of the current practice of metal detecting at national level is given in MDAE. The writer herein however presents as Appendix 4.1 a short history of the advent of the metal detector in Kent which includes comments that reflect the writer’s personal experience as a field archaeologist often working in close liaison with metal detectorists during the years since 1978. Remarks made as factual statements regarding the field use and performance of metal detectors are based on field observation and personal use.

4.2. The Early Bronze Age, 2000 - 1500 BC

This date bracket and those for the following two sections are according to the ‘Absolute Chronology’ for the British Bronze Age proposed by Needham (1996). During the above period copper alloy casting and working technology was becoming established in Britain. Overall, the number of artefacts found is small by comparison with finds from the Middle and Late Bronze Ages. At the time of writing Kent can only boast thirty Early Bronze Age bronzes, about 30% and 21% respectively of single finds from the following periods, suggesting that metal was at a premium and that metal objects were high prestige possessions. Worn or broken bronzes would have gone into the crucible, only votive objects or burial depositions surviving. The range of items manufactured was small, being limited to flat and flanged axes, dagger and halberd blades, and later in the period, tanged spearheads. Although gold was being fashioned into ornaments, the use of bronze for such a purpose was rare. Two bracelets found in Beaker flat graves in Thanet (A253 excavations 1994 unpublished), are unique in Britain, and the only similar items yet found were in what is probably a smith’s hoard from Wageningen, Gelderland in the Netherlands, (Playte 1898).

Deposition or loss

The loss or deposition of bronzes, and if the latter, the nature of the act, has been the subject of review in ‘A Passage of Arms’ (Bradley 1990). The varied interpretations of the

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evidence that Bradley presents, and some of the many questions arising, will be referred to in each section of this chapter. Some Early Bronze Age metal objects were deposited as grave goods in Beaker burials. In Kent only five of the thirty finds recorded have such provenance, two bracelets and a dagger blade from Thanet, a dagger from a grave at Sittingbourne, and an awl from a barrow cremation burial, also from Thanet, see List 1 in Appendix 4.2. No Kentish Early Bronze Age bronzes were found in association with settlement remains, and no evidence *for* votive deposition other than 'wet' associations is apparent. It seems reasonable to assume that some of these un-provenanced objects were lost, metal value precluding their being discarded. Equally though, they could be grave goods or 'Ritual' deposits from contexts rendered invisible to us by the plough. It seems highly significant that of thirty Kent finds, only three were found by metal detector. The 'metal detector revolution' that resulted in the discovery of so many Middle and Late Bronze Age bronze finds in Kent, left the county's Early Bronze Age population relatively unaffected. Surely indicating that the finds were disturbed by plough attrition well before the advent of the metal detector..

Smith's or 'votive' hoards are so rare in the Early Bronze Age that that from Wageningen is notable. The flanged axe from Gore End, Thanet, was putatively found with a flat axe, lost last century. If so, they represent by current accepted definition (two or more objects), a hoard. A flat axe in the Thanet Archaeological Society collection could well be the missing item. It came from the old Ramsgate Museum collection plundered in the 1950s during the destruction of Nethercourt House, Ramsgate. A flanged axe from Broadness (Swanscomb, Kent) was found in association with a hoard, but this was the Middle Bronze Age Broadness hoard of Broadward Tradition spearheads, and so the axe can be considered an anachronism bound for the crucible.

Distribution

The distribution map (Fig 4.1) shows the Kent distribution of Early Bronze Age metal artefacts as of 1994. It can be seen that generally, the finds are scattered, although nine (30%) are in the Isle of Thanet. Slight grouping is evident at Chatham (three finds, one north of the Medway), Faversham (two finds), and Monkton and Ramsgate both in Thanet (two finds each).

4.3. The Middle Bronze Age, c. 1500 - 1000 BC

This period covers the Acton Park and Taunton industries, currently attributed to a period c. 1400 - 1200 BC, and the Penard and Wilburton industries, attributed to c. 1200 - 900 BC. The products of these southern British industries commence with a simple array of tools and weapons, in the main palstave axes, side-looped spearheads, and dirks. Soon however, ornaments

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such as twisted torcs, arm rings, finger rings, quoit-headed and side-looped pins appear, their sudden burgeoning giving rise the phrase 'Ornament Horizon. Thereafter, the main developments are in sheet metal working, and in the evolution and extensive production of weapon types, principally long-tanged swords which replace rivet hilted rapiers. The close of the period is marked by the advent of winged and socketed axes.

Deposition and loss

Bronze artefacts hardly feature as grave goods during the Middle Bronze Age. Only six inhumations accompanied by metalwork are known in Britain, one of them the burial with bracelets found at Hollicondane, Ramsgate, Isle of Thanet (Piggott 1949). This may be because in a period when the cremation rite was almost universal, objects un-effected by the heat of the pyre were thought inappropriate (Graslund 1994). Single finds from the period and their explanation in general terms presents problems. Some of course will have been lost by their owners, but surely not many. One does not easily lose a relatively large and heavy prestige object (79% of all Kent's single finds are palstave axes), and if broken in use it can be recycled. It is possible that some single finds are dispersed remnants of ploughed-out hoards, although it would seem more likely that they, like the hoards, were deliberately deposited. Some few British Middle Bronze Age hoards contain metal working tools, ingots and fragments so as to suggest that they were smith's stock. In such cases the burial of the material, whether considered stock in trade or treasure, coupled with a failure to recover it, must surely have been a rare event. When, as recently in Thanet, hoards are found to have been buried in similar circumstances within the boundaries of settlements, it may be suspected that their deposition represents:

- a) Votive offerings to placate or secure favour of a god or ancestor.
- b) Ceremonial payments such as 'blood price' or 'bride price.'

Or possibly, based on Thanet evidence:

- c) Part of a rite of leave-taking on the abandonment of a settlement.

In all cases falling within criteria for 'Ritual hoards' (Bradley 1990, Table 1, 24).

In considering the above possibilities, difficulty is encountered in that few British hoards possess excavation provenance. In very few cases have archaeologists been present at the discovery and removal of a hoard. Often the find spot cannot afterwards be reliably located so as to make investigation impracticable, and in many cases provenance is limited to an area name such as that of a parish or farm. Notable exceptions to this are three hoards found in Thanet, each exhibiting cross-matching of axes from the same moulds, thus demonstrating them to be contemporaneous. These hoards and their deposition are described in detail below

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The Birchington Hoard

This was discovered in 1904 during brickearth extraction in Southend Brickfield, Birchington. From a published report (Powell-Cotton and Crawford 1924) the find spot can today be established to within one metre. The hoard consisted of fourteen palstave axes packed in a large decorated globular urn which has been assigned to the ultimate Deverel Rimbury tradition (Champion 1982). This method of containment is most unusual, although a practice shared by the Worthing Hoard and allegedly some others (Powell-Cotton and Crawford, 1924, 220). No attendant settlement evidence was reported at the time of discovery, but in all probability none was looked for. In 1992 the writer carried out an archaeological evaluation of the find spot and its surroundings ahead of construction of a school building (Perkins 1992a). A considerable depth of overburden was encountered, but it contained only modern material down to chalk bedrock, so that it can be assumed that the site was entirely denuded in the 1900s and reinstated by dumping.

The Birchington palstaves were re-examined in 1988 by Mr. L. R. Jay of Thanet Archaeological Trust, when they were drawn, (Fig. 4.2). Although they had deteriorated considerably since their discovery, it was still possible for the writer by comparison of the measured drawings to establish that several axes in the Birchington and St. Mildred's Bay hoards were so similar (allowing for minor miss-alignment of mould shells and effects of corrosion) that they must have been cast in the same moulds, or moulds made from the same matrix. Statistically, the chance that an original mould or matrix would more or less duplicate another in size, proportions, curves, and ornament style can be considered infinitesimal. While no axe in the Birchington Hoard has a counterpart in the South Dumpton Hoard, there is a single link between the South Dumpton and St. Mildred's Bay axes. The cross matching given in Table 4.1 was as follows:

Table 4.1. Cross matching of Palstave castings from three Thanet hoards

Numbers are Museum/Collection numbering and as illustrated herein

Birchington Hoard numbers	St. Mildred's Bay numbers	South Dumpton numbers
1 and 2	= 1	
14	= 3, 9, and 10	
	5	= 2

On analysis, the alloys from the St. Mildred's Bay and South Dumpton hoards displayed the expected affinities (Day and Perkins 1996).

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The St. Mildred's Bay Hoard

During the 'Great Storm' of November 1987, heavy seas scoured away beach deposits over the wave-cut shelf at St. Mildred's Bay, Westgate on Sea, Thanet, and they were not restored by natural process for several years. The writer, alerted by a local resident, came on the scene shortly afterwards, and with a small team began investigation of a number of archaeological features, (Fig. 4.3). Removal of the sand and Thames silt revealed the main natural feature of the site to be a prehistoric stream bed winding from under the modern promenade north-west to low water mark, its course marked by springs and fresh water pools, (Fig. 4.3, C). On investigation it became clear that a series of inundations, probably coinciding with major marine transgression peaks on the curve of post-glacial sea level rise (Devoy 1979), had caused the abandonment of several occupation sites. These ranged from a Late Neolithic - Early Bronze Age presence, with flint tools, fragments of a dugout canoe, and structural timbers, to the hut circles and wattle-lined pits of a Late Bronze Age settlement. The most obvious feature of the site was an area of saturated brickearth, (Fig. 4.3, B). Where this bordered the stream bed it was defended by a low bund composed largely of calcined flint nodules in a soil matrix, (Feature 35). Shoreward of this was a curving length of ditch (Feature 21), and a parallel palisade trench (Feature 24). The ditch was filled with peaty silt and layers of preserved vegetation, flags and rushes. It was on the seaward (outer) side of the ditch that the St. Mildred's Bay hoard of ten palstaves was found, (Fig. 4.4).

Early in the Trust's investigations, the team noticed that their activities were being monitored by several of the 'treasure seeker' fraternity. As a precaution the team immediately made a metal detector search of the whole site. The St. Mildred's Bay hoard was found apparently in the fill of the enclosure ditch (Fig. 4.3, Feature 21 arrowed), at a depth of 0.70 m, from which it gave a strong signal. The ten axes had been deposited in a row, in contact, and with their cutting edges vertical. Debris surrounding the bronzes was lifted, and when examined in the laboratory, many fragments of birch bark and compacted grass or straw were found. These were stained with cupric corrosion products, and some bore moulded impressions of the axes. While no reconstruction was possible, it seems likely that the axes had been packed or wrapped in grass or straw within an outer envelope of birch bark. During the main phase of investigation in 1988 (Perkins 1988) the ditch was sectioned at this point, and the point of deposition was established as being in a small pit cut into the brickearth and chalk side of the ditch prior to an in-filling of the ditch with peat and vegetable matter, presumably as the result of a flood.

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The Mutrix Farm Hoard

It is worth mentioning that the 'Mutrix Farm Hoard' of twenty-seven palstaves was found nearby in 1724 (Lewis 1736). The cliff-top find spot of these axes being no more than 200 - 300 m. from that of the St. Mildred's Bay hoard.

The South Dumpton Down Hoard

In 1992 the writer carried out an evaluation on a surviving fragment of un-developed downland south of Dumpton Gap, Broadstairs. The hoard was found during a routine sweep of the evaluation trenches by metal detector. It consisted of five palstave axes, a bracelet, and part of another. Fortunately as a result of evaluation a return was possible in 1994 when the site was fully investigated. The context of the hoard's deposition was revealed, and a quoit-headed pin was found at a separate spot. These bronzes are shown in Fig.4.5. Again as at St. Mildred's Bay, the hoard had been deposited in a small pit cut into the side and fill of an enclosure ditch. As can be seen in Fig. 4.6, the objects were placed in two layers, with the lower layer being of four axes covered by a large slab of tabular flint, while the upper consisted of one palstave and the bracelet and fragment. The overall context of the hoard and pin was that of an irregular five-sided extended enclosure with causeway entrances and internal complexes of pits and postholes. Ditch and pit fills yielded an assemblage of Deverel-Rimbury pottery

The method of deposition of the three hoards described above, burial in a small pit cut into the side of an enclosure ditch has at least one parallel outside of Thanet. This was similar to the ornament hoard found in the Middle Bronze Age Phase enclosure in the hillfort at Norton Fitzwarren, Somerset (Langmaid 1971).

Distribution

The distribution of Middle Bronze Age ornament finds in Britain and north-east France is shown in Fig. 4.7, and the distribution of Middle Bronze Age hoards and single finds in Kent is given in Fig. 4.8. The 'high status' ornament distribution for Kent (see below) is confined to Thanet. The distribution of tools and weapons (Fig. 4.8), clearly demonstrates a heavy concentration in the Isle of Thanet. Outside of Thanet the single finds tend to cluster in the valleys of the Medway, Stour and Darent, although there is an interesting group composed of a hoard and seven single finds in the north-east part of the Sutton Wedge area of the North Downs. In Kent the great majority of bronzes found are tools and weapons, which constitute 94% of all finds, the breakdown being:

Palstaves: 130 = 81%; Swords, Dirks, and Rapiers: 10 = 6%; Spearheads: 7 = 4%;

Chisels: 1 = 0.6%; Sickles: 1 = 0.6%.

Notable exceptions are 10 ornaments, all from north-east Kent, these are:

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Picardy Pins: 4 = 2.5% (1 a lone find from St. Margaret's Bay, Deal, 3 others packed in an urn from the St. Lawrence (Ramsgate) Hoard).

Quoit-headed Pin: 1 = 0.6 % from South Dumpton Down, Broadstairs.

Bracelets with incised decoration: 4 = 2.5% (2 found with a burial at Hollicondane, Ramsgate, and 2 in Canterbury Museum that are so similar in style that they are thought to have come from the Hollicondane burial).

Undecorated bracelet: 1 = 0.6% (from South Dumpton Down Broadstairs).

There are 11 Middle Bronze Age hoards recorded from Kent, of which 7 were found in Thanet, and the other 4 scattered throughout the County. A point worth making is that while Thanet has yielded far fewer single finds from this period than the rest of the County, the collective total of Thanet's Middle Bronze Age bronzes as single objects amounts to over 40% of the collective total for Kent.

4.4. The Late Bronze Age, c. 1000 - 600 BC.

The bronze industries of this period are usually broken down into the Penard and Wilburton industries, generally attributed to the period 1200 - 900 BC, and the Ewart Park phase and the Carp's Tongue and Broadward complexes, attributed to the period 900 - 600 BC. During the period the palstave axe is slowly supplanted by winged and socketed axes, horse harness and wagon fittings appear, and a new technique, that of sheet metal working comes to Britain, its application being the manufacture of high prestige goods such as cauldrons, armour and shields. The most striking phenomenon of the period is however the introduction of large scale weapons manufacture. Socketed spearheads that originated in the Middle Bronze Age exchange side loops for socket rivets. The earlier designs of dirks and rapiers with separate rivet attached hilts are replaced by swords cast with an integral tang and pommel. The physical and consequent social changes that are generally interpreted as heralding and forming the context of the Late Bronze Age industries are the climatic (sub-Atlantic - Atlantic) changes to colder wetter weather that came around 1200 BC (Evans 1975, Chapter 4). These would have been followed by loss of land to fen and moor, with presumably a progressive failure of arable agriculture under population pressure engendering an increased dependence on cattle herding on land newly become marginal (Piggott 1972). Possibly as a social response to these new conditions there was a proliferation of weapons, gold ornaments, and 'high prestige' objects of sheet bronze, combining to suggest the common occurrence of warfare with perhaps the emergence of an elite governing class of

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warriors. In general, from the evidence of finds and hoards, the use of bronze increases greatly during the period, as does British-Continental trade.

Deposition and loss

Single finds form a high proportion of Kent's total of Late Bronze Age bronzes. Many of the objects are fragments or very worn, which may reflect an increasing availability of the metal to the point when broken or worn objects were simply discarded. The rare presence of iron objects in a few hoards may also be symptomatic of this transition. Bradley makes the point however, that 'single find' may be residual from a 'Non-ritual' stored collection from which and to which objects were added or removed (Bradley 1990, 6).

The composition of British Late Bronze Age hoards is often such as to suggest a close connection with bronze casting and finishing as in most published hoards the objects can be seen to be broken or worn so as to constitute scrap. Large objects such as swords have been snapped down into pieces ten centimetres or less in length, presumably to fit the crucible. In Kent, and particularly among Thanet hoards 'bun ingots' are often present, either complete or as large fragments, the broken edges of which sometimes exhibit casts of un-melted objects. Pincers, hammers, anvils, and moulds of metal and stone sometimes occur. These attributes fill the criteria for 'Non-ritual' or founders hoards (Bradley 1990 Table 1, 14). When hoards having these attributes are found in close association with settlements, or actually within the enclosures, an obvious interpretation is that they represent scrap caches buried for safety between bouts of casting, and probably close to the smith's working floor. This is illustrated by the following description of a hoard within its context.

The Monkton II Hoard

An example of the above that may well be considered is from the Late Bronze Age settlement site at Monkton, Thanet, which was evaluated for English Heritage by the writer in 1992 (Perkins 1994). It is situated on the brow of a downland escarpment overlooking an ancient shoreline of the Wantsum sea channel. The limits of the settlement are impossible to define, since it extends to the south under a road, and possibly under Monkton village, its area is however, at least 3.25 ha. Two ditches of obvious defensive function were sectioned, but evaluation by trenching did not allow them to be followed so as to plan an enclosure. Three bronze hoards, and components of a probable fourth have been found by metal detector within the settlement area. Of these the Monkton II hoard was exceptional as being excavated under archaeological supervision, with a further investigation of its context (Perkins 1991). The hoard has fifty-seven components, of which ten represent weapons: a sword in the Ewart Park tradition, blade fragments from two Carp's Tongue swords, three dirks or rapiers, and fragments from three

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spearheads. The balance was made up of twenty-four socketed axes, two bun ingot fragments, and miscellaneous objects or fragments, among them a 'bugle fitting' and the ferrule from a flesh hook. In all a fine typical example of a Carp's Tongue hoard, its composition favouring about equally southern British and northern French traditions.

Figure 4.9 a) and b) shows the vertical and horizontal positions of the hoard components, and the immediate context of the hoard. From this it would seem that the bronzes had been deposited in a small shallow pit cut through an horizon littered with burnt flints, pot sherds, and quern fragments. A working floor, or the floor of a hut? At Monkton there were three, probably four bronze hoards buried within 100 m. of one-another, and within a densely populated settlement, that it is thought to have flourished for little more than a generation. This close association between settlement and hoard deposition was further demonstrated at Ebbsfleet in Thanet.

The Ebbsfleet Hoards

Ebbsfleet consists of a low ridge of Thanet Beds sand, which, when the Wantsum sea channel was completely inundated, formed a peninsular extending south from the coast of Thanet. Its claim to fame lies in being the legendary landing place of Hengist (AD 449), and Augustine (AD 595). Archaeological evaluations by the writer (Perkins 1992b, Hearne and Perkins 1995) suggest that the peninsular may have been a regionally important entrepot through much of the last two millennia of prehistory. Three bronze hoards have been recorded from Ebbsfleet:

The well known Ebbsfleet I hoard (often miss-attributed as the Minster hoard) was found in 1893 (VCH, I, 1908). Its exact find spot was not recorded, but 'Ebbsfleet Farm' places it on the peninsular, as the surrounding alluvial levels are Medieval surfaces. It consists of 190 pieces and fragments, weighing 160 lb. (72 kg.), and is a typical Carp's Tongue hoard.

The Ebbsfleet II hoard was found by metal detector in 1991, close to prehistoric features revealed by evaluation trenching (Perkins 1992b, 285). It consists of two socketed axes, the socket of one packed with forty-two identical studs or buttons (named by the writer 'sequin studs') these being 5 mm. in diameter.

The Ebbsfleet III hoard was found by metal detector during a routine sweep of exposed horizons in the 1992/3 watching brief phase of work at Ebbsfleet (Hearne and Perkins 1995). Four of the five objects were fragments, one part of the hilt of a Carp's Tongue sword, the fifth a socket hammer of 'planishing' type with a boat-hull nose for working curves in sheet metal. The objects were found scattered through the fill of a pit about 0.80 m. across, and 0.30 m. deep. This feature was close to hut remains holding Late Bronze - Early Iron Age sherds.

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In summary, these hoards have the attributes of 'Founders' hoards. Bradley warns however, that we should not rush to accept this as the sole explanation. Such hoards could be votive, or, if utilitarian, their deposition could be connected with periods of political crisis, or attempts to control the flow of metal (Bradley 1990, 21 and 194).

While the hoards described above may well have been deposited as scrap, albeit valuable, awaiting re-casting, at least two single bronzes from east Kent could be votive deposits:

The Shatterling Sword

This was a chance find made when a smallholder was cutting a pit for a septic tank in 1995 (Perkins 1995a, 472). The find spot is on an escarpment overlooking a valley containing a tributary of the Little Stour, south-east of Wingham, Kent. On this ridge the geology is that of deep measures of the Thanet Beds sands over chalk. The sword is of late Wilburton - Ewart Park type, at the intermediate 'Blackmoor' stage, (Fig. 4.10.1). It is complete although slightly bent, and has all the hilt rivets in place, demonstrating that it was hilted with wood or bone when buried, (Fig. 4.10.2.).

The sword was deposited lying flat, pointing north, in sand at a depth of 1.20 m. below modern ground surface. Found at the same level were a number of pot sherds in a gritted prehistoric fabric. Just below the sword was a naturally occurring layer of flint pebbles, and as the writer was examining and recording the find spot, water started welling up through this, although the elevation hereabouts is 30 m. OD. To the best of the writer's knowledge, this is one only three complete sword finds from Kent, the others being from the Medway at Rochester (Jessup 1933) and it joins a rather small national corpus of complete swords, nearly all of which have been found in rivers (Bradley 1990, 24). The inference that can be drawn from this is that the swords were votive or commemorative offerings, which could well be the case with the Shatterling sword, a votive deposit in a well or spring.

A Sickle from the Monkton Settlement Site

This was found during the evaluation work of 1992. It is a small bronze socketed sickle with a fullered (shallow grooved) blade, complete although showing signs of wear, (Fig. 4.10.3). It had no rivets. The context of the find was a pit, diameter 0.50 m., depth 0.30 m., flat bottomed with near vertical sides. This was filled with layers of burnt soil and soil darkened with wood ash, and containing pot sherds, calcined flint nodules, bones and shells. There were a number of similar pits across the site, and their contents suggested that they were used in food preparation, perhaps in the manner of a 'Dutch oven.' The sickle lay flat at the base of these deposits. One explanation for the sickle's presence is that it had been placed in the 'fire pit' to burn out the

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remains of a broken handle, or to anneal it before re-working or sharpening the blade. If so, why was it not recovered? A votive deposition cannot be ruled out.

Distribution

The distribution map of Late Bronze Age hoards and single finds (Fig. 4.11) shows firstly a very pronounced clustering along the northern coastline and Thames-side shore of the County. Only two groups appear on the southern Channel coast, at Dover where the Dour enters the sea through a break in the line of high cliffs, and west of Folkestone where North Downs anticline gives way to a coastal plain. Hoards and single finds are also concentrated in the valleys of Kent's major rivers and their tributaries. Between these the hinterland is almost bare of bronze finds, even in the Sutton Wedge area, where metal detector prospecting is carried out on a large scale with mass rallies being organised yearly. The most notable concentration occurs in the Isle of Thanet which has yielded 28% of the county's hoards, and 23% of single finds.

4.5. Discussion

In Kent, a theme for the whole Bronze Age period is a gradual increase in the use of metal, from the treasure-like weapons and tools buried with a few Beaker worthies, to the wide assemblage of tools, weapons, ornaments and even toys that were in common use on the eve of the coming of iron. The Kent distribution maps of Early, Middle and Late Bronze Age finds reflect this revolution, but what else is demonstrated by them? When the three distributions to be combined as in Fig. 4.12, then a considerable bias towards north-east Kent is indicated, its focus in the Isle of Thanet. As crude evidence of population concentration and socio-economic activity, this seems powerful evidence, but its validity is open to the following objections:

- a) That the distributions, at least for the Middle and Late Bronze Ages are constructed from biased data, the result of intense archaeological activity, and a concentration of metal detector enthusiasm.
- b) That the circumstances of, and motive for deposition altered with changing social pattern of the Bronze Age, so that each of the distributions makes a separate statement.
- c) That population concentration does not necessarily equate with economic or military power; the distribution may reflect only the pressure to settle good land.

To deal with point a), of eight recently recorded bronze hoards from Thanet, three resulted from detector use on archaeological excavations, five were random finds by detectorists. Of five single finds, two were by chance and three from excavations. From this it might seem that on-site use of detectors and liaison with detectorist has loaded the distribution in Thanet's favour. It must be

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considered however, that throughout much of Kent, liaison between detectorists and archaeologist has been gathering momentum since the formation of the Kent Archaeologists and Detectorists Liaison Group in 1991. The 'South of England Rally' an annual field meeting held in Kent since 1991, and monitored by the group attracts well over a thousand participants, from all over Kent and beyond (MDAE 5,6,1). By contrast, the 'catchment area' for Thanet Archaeological Society and Trust in having bronze finds reported to them, is the Isle of Thanet and a little beyond. Within this area, detectorists willing to co-operate with Thanet Archaeological Trust number at most forty, the thirty members of the 'Thanet and Wantsum Relic Hunters' (a closed membership) and a few 'loners.' That the Thanet Trust is far from omniscient in its area was demonstrated at time of writing, when a bronze hoard from Acol in Thanet was made available to the Deal - Dover Archaeological Group for recording (Keith Parfett 1997). The finders did not know of any local archaeological organisation, and heard of the Dover Group by pure chance.

The second objection b) is only valid if for any given sub-period of the Bronze Age, the motive for, and method of deposition of bronzes can seen as at odds with the concept that concentrations of finds equate to concentrations of activity and settlement. This may well be argued for the Early Bronze Age period. A few of Kent's finds (16%), were found in association with round barrows, and the monuments in question may well have been some distance from any community. For the bulk of the finds, if lost or discarded, then they may have been dropped by travellers, or members of hunting parties, or constitute debris from small isolated communities. In the most general terms however, and bearing in mind the foregoing strictures, broad concentrations of finds must be considered significant. Thanet has yielded 30% of all Kent's Early Bronze Age bronzes.

Only two of Kent's Middle Bronze Age hoards have full archaeological provenance. In both cases at St. Mildred's Bay and South Dumpton, the bronzes had been deposited with care, parcelled or stacked in small pits cut into the sides of ditches. Again in both cases the ditches enclosed settlement sites, and had been allowed to infill up to the time of the burial of the hoards to a level indicative of neglect and pending abandonment. While no evidence was obtained to link the urn-packed Birchington hoard with a settlement, there was no contrary evidence. The axes had been packed with care, and were contemporaneous with the St. Mildred's and Dumpton hoards, so that their deposition may well have been similar. The find spot of the Picardy Pins in their Deverel Rimbury urn from St. Lawrence College, Ramsgate, was not excavated to anything like the archaeological standard of that time (1929). Nevertheless, on the evidence of environmental materials obtained, C.F.C. Hawkes (1943) was sure that the find spot was a storage pit within a settlement. On what little evidence we have therefore, and bearing in mind

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that Thanet could prove to be a special case, Middle Bronze Age hoards in Kent can be associated with occupation sites, and their deposition with votive intent.

It is customary to consider some Late Bronze Age riverine finds such as the swords from the Medway at Rochester (Jessup 1933), as being votive offerings, and the sword and sickle from Shatterling and Monkton may also have been interred for this purpose. The great bulk of bronzes from the period would seem however to be either hoards kept as bronze founder's stock, or in the case of single finds, lost or discarded objects. Again unfortunately, few of Kent's Late Bronze Age hoards have been investigated *in situ* or as to context. Such sites as are known in Kent are:

- a) Frindsbury, nr. Rochester. A socketed axe and a perforated clay plaque were found with midden material in a chalk-cut pit (Arnold 1887).
- b) Ebbsfleet, Thanet. Both the Ebbsfleet II and III hoards and two single finds came from within the area of a large settlement (Hearne and Perkins 1995, 274).
- c) Monkton, Thanet. The four Monkton Hoards, two single finds, ash-slag, and a perforated clay plaque all came from within a large settlement (Perkins 1994).
- d) Minnis Bay, Thanet. The 'Beck' Bronze Hoard was found among settlement remains in the inter-tidal zone (Worsfold 1943).

To these can be added:

- e) Highstead, Chislet. Clay moulds for pins and ash-slag nodules were found within a Late Bronze Age enclosure (pers. comm. N. Macpherson-Grant). This site which overlooks the Wantsum Channel also yielded fragments of the perforated clay plaques that turn up so regularly with high temperature ash-slag and bronzes that an association with the process of bronze casting has been suggested (Perkins 1994, 311).

The number of bronze hoards that have been examined *in situ* by archaeologists is so small that it is impossible to say whether the Monkton and Ebbsfleet hoards are typical as to context. Indeed, the writer knows of no others so recorded. Faced with a dearth of depositional evidence it can only be said that when such evidence exists it places the bronze hoards in or on the boundary of a settlement. As to the motive for hoard deposition, whether votive or in some way involved in the manufacture and exchange of bronzes, as Friedman and others have pointed out, there was probably little if any dividing line between religious and economic activity in prehistoric societies, "*Religion can function as economy, and economy as religion*" (Friedman 1979, 24).

Coming to the last objection, c), that if a concentration of finds does reflect a concentration of population, that population does not necessarily cluster about an administrative focus. It has previously been deemed reasonable to consider that it does. Ellison (1980) had no difficulty in postulating the existence of a major re-distribution / settlement enclosure in east

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Kent from finds distribution. The two ornament hoards from Ramsgate (Appendix 4.2, List 2, 5 and 6) being considered as significant evidence in the light of the ornament finds at the major enclosures at Highdown Hill, West Sussex (Ellison 1981), and Norton Fitzwarren, Somerset (Langmaid 1971). At both these sites a large ditched enclosure held high prestige goods, and was central in a regional cluster of hoard finds and farmstead sites. So far however, no similar juxtaposition has been observed in a Late Bronze Age landscape.

In discussing the reasons or mechanisms of hoard deposition, Burgess and Coombs (1979 iv) mentioned as one of four possibilities: 'deposits not recovered for one reason or another from an every day place of storage, in a house or workshop for example.' It is not surprising that they could cite no case of this however. What has been lacking is any archaeological investigations of the immediate and neighbouring contexts of hoard discoveries, with even an examination of the exact find spot being quite a rare occurrence. When discovery was followed up by archaeological scrutiny as in the Isle of Thanet, two groups of hoards, at Monkton and Ebbsfleet were found to have been deposited within the boundaries of large settlements, so that their constituting a local smith's scrap stock is a possibility (Bradley 1990, 118). While in neither case has it been possible to plot the whole line of these boundaries, the Monkton enclosure is at least 3.25 ha in extent with an expectation from sampling of at least fifteen structures. At Ebbsfleet the hoards find spots and numerous hut sites are scattered though an area of something like 2.5 ha. These communities were clearly of village rather than farmstead scale, and as both were situated on sheltered shorelines activities such as fishing and trading might be expected as a *raison d'être*.

That trade did play a part in Thanet's Late Bronze Age economy can be demonstrated by the occurrence within the Thanet hoards (or as single finds) of objects with far points of origin. This is best conveyed by Fig. 4.13. Find spots for ten classes of object have been shown in their British and European distributions (in some cases convention symbols have been spread slightly to avoid superimposition). The objects are:

Carp's Tongue and tanged leather-working knives; South Welsh, North Dutch, and Lower Meuse socketed axes; and small bag-shaped chapes, bugle fittings, sickles, bracelets, beads and razors.

Plotting data (updated in some cases) was obtained from O'Connor (O'Connor 1980). As can be seen from the distribution, all ten classes of object occur as Thanet finds, sometimes as multiples, and in a concentration and variety not found elsewhere. Thanet is thus shown as a pivotal exchange point between British and European centres of manufacture where coastal trading highways from the Severn and Thames mesh with those of the great rivers of north-west Europe. Given the small size of the Isle of Thanet it is difficult to see it as playing a part in such

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trade by virtue of its own resources. Surely the position of the Island athwart the trade routes gave it a special role.

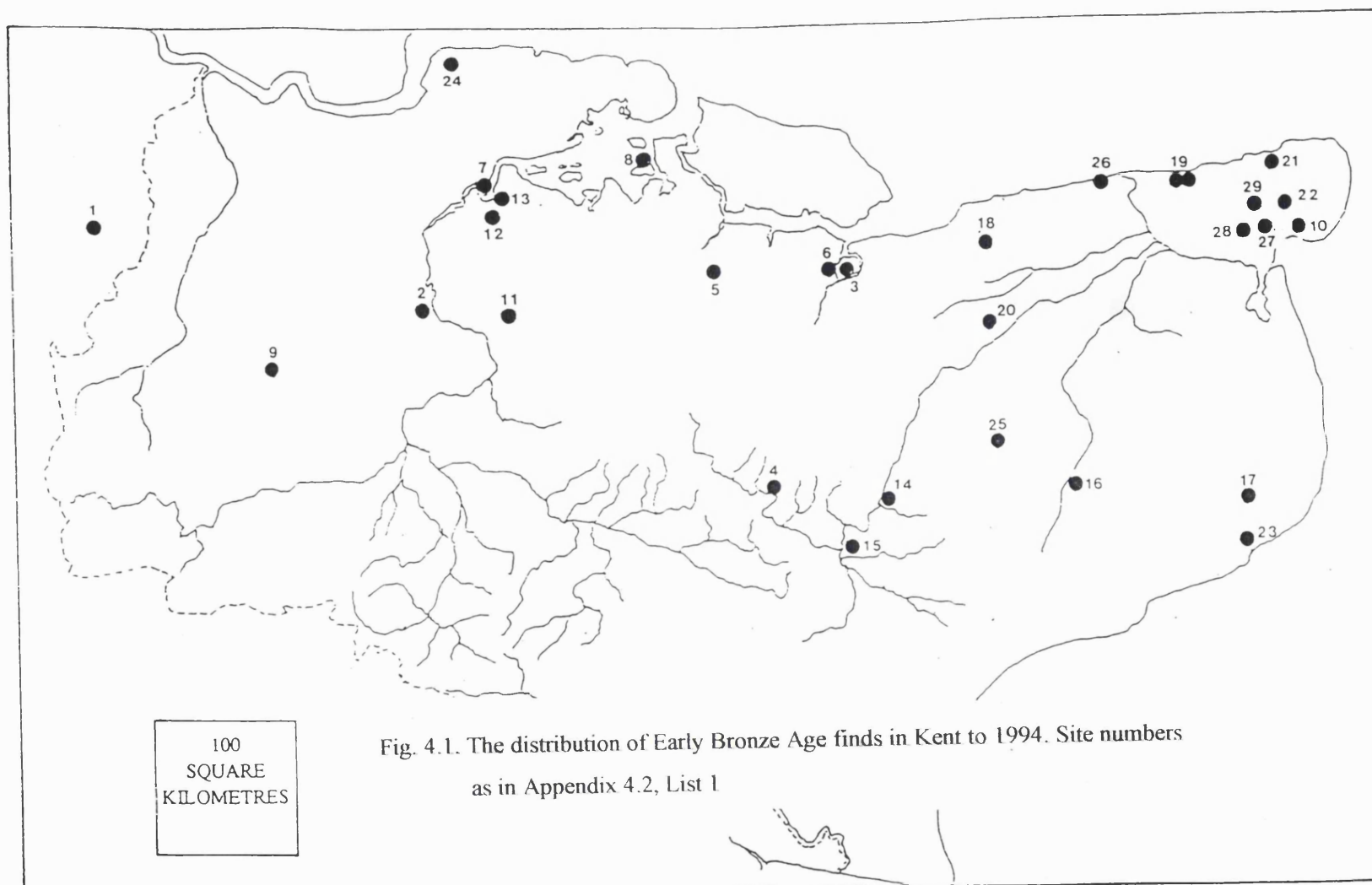


Fig. 4.1. The distribution of Early Bronze Age finds in Kent to 1994. Site numbers as in Appendix 4.2, List 1

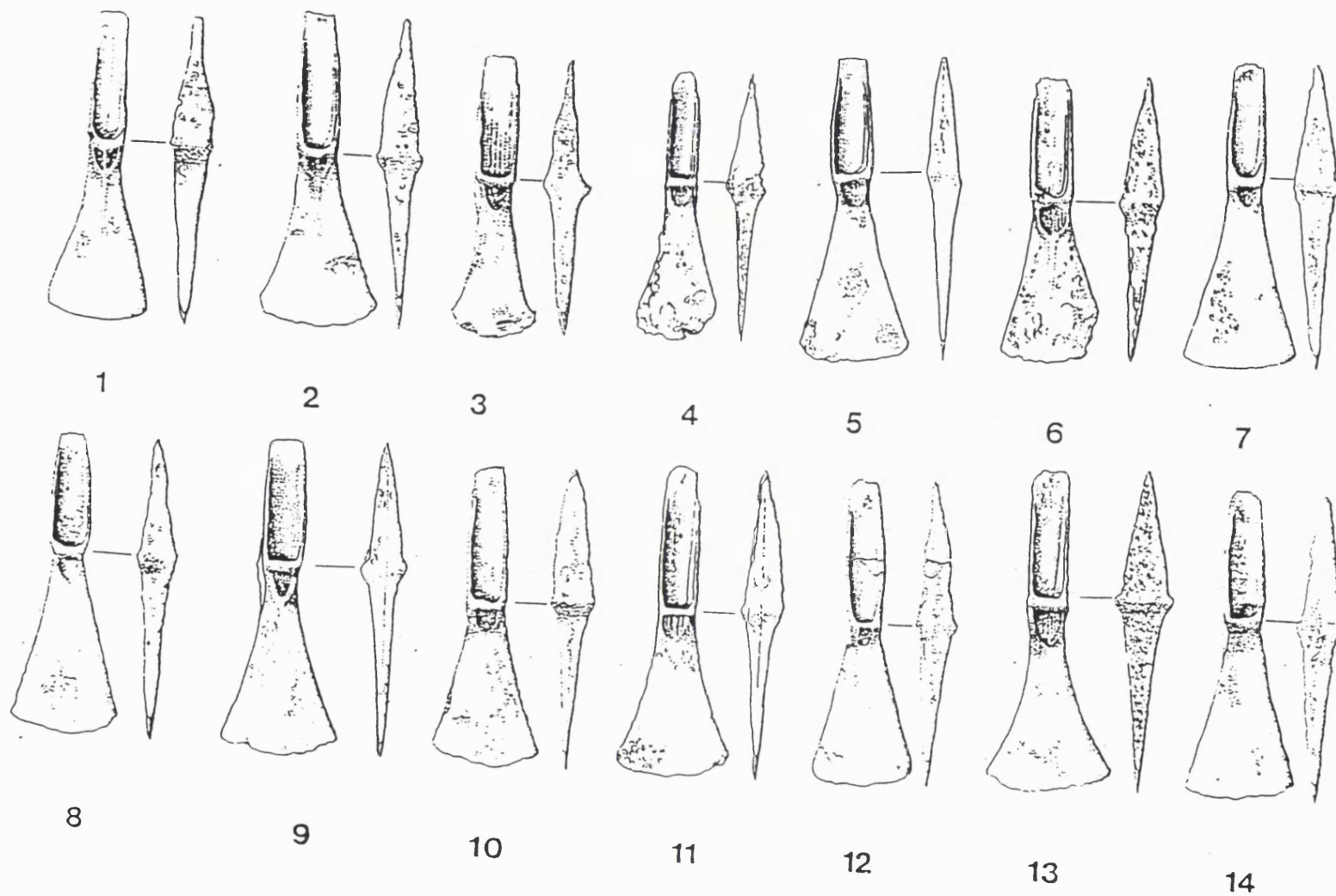


Fig. 4.2. The Birchington Hoard

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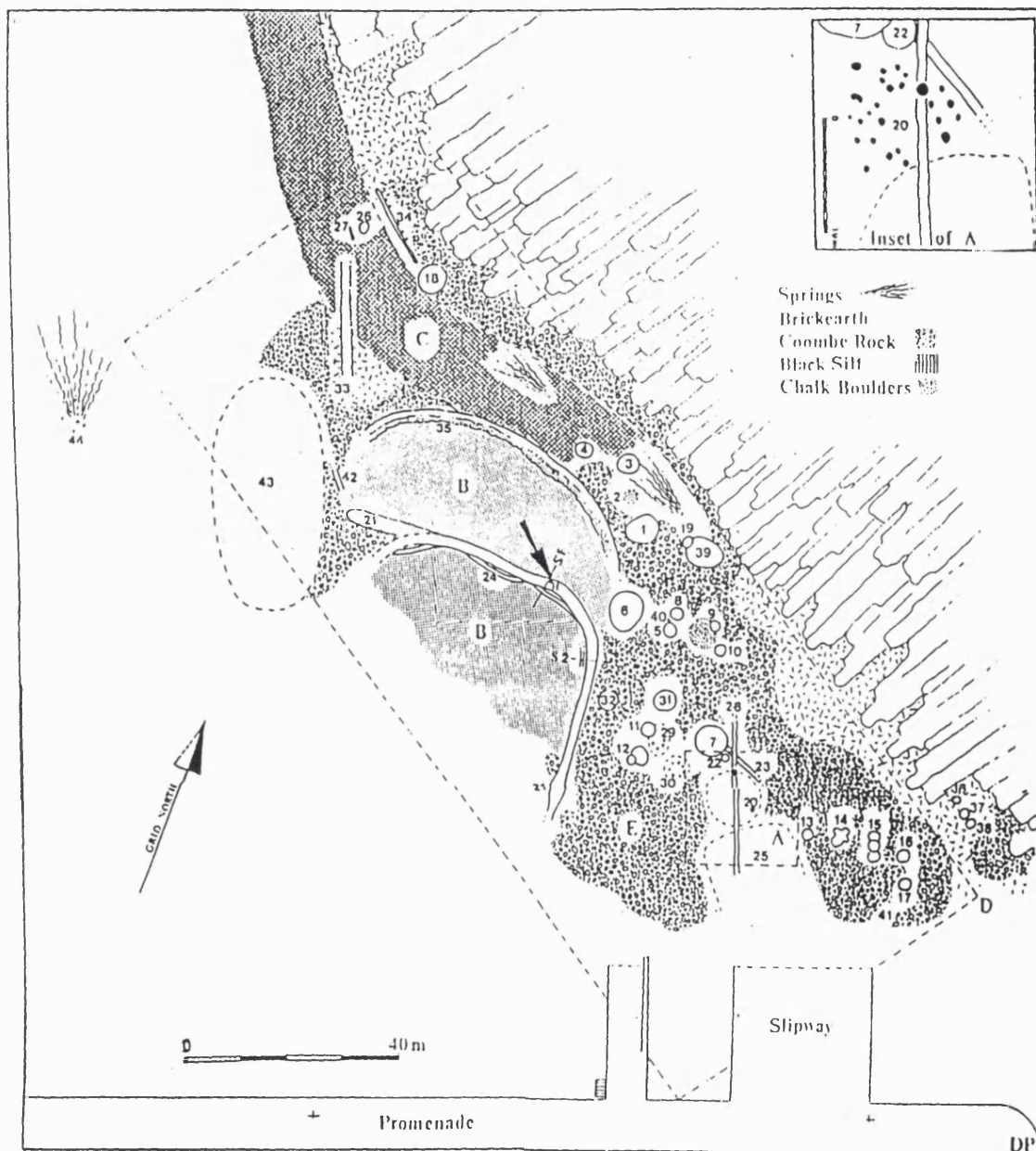


Fig. 4.3. Prehistoric settlement remains in the inter-tidal zone at Westgate-in-Sea, Thanet. The find spot of the bronze hoard is arrowed

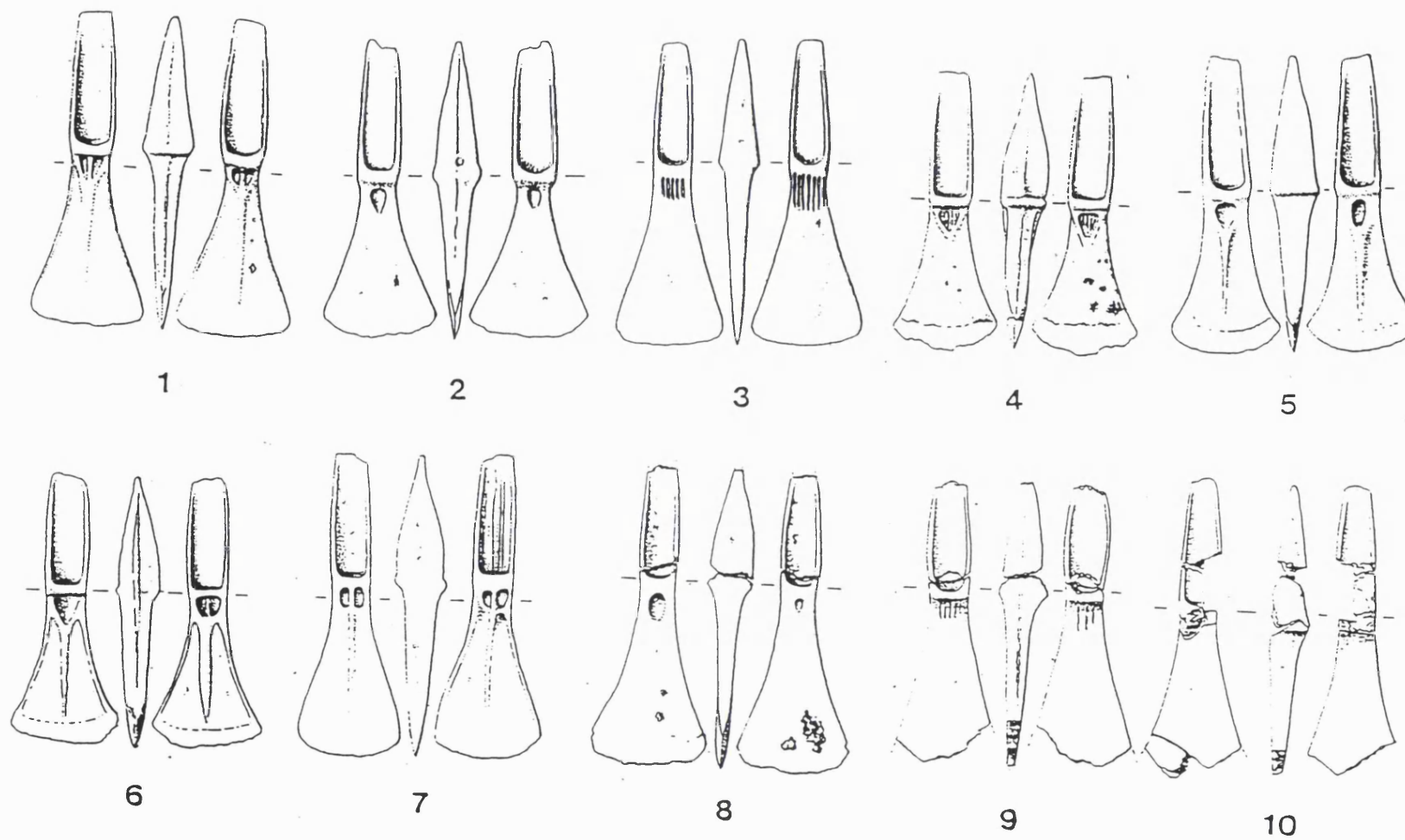


Fig. 4.4. The St. MILDRED'S Bay Hoard

10 cm.

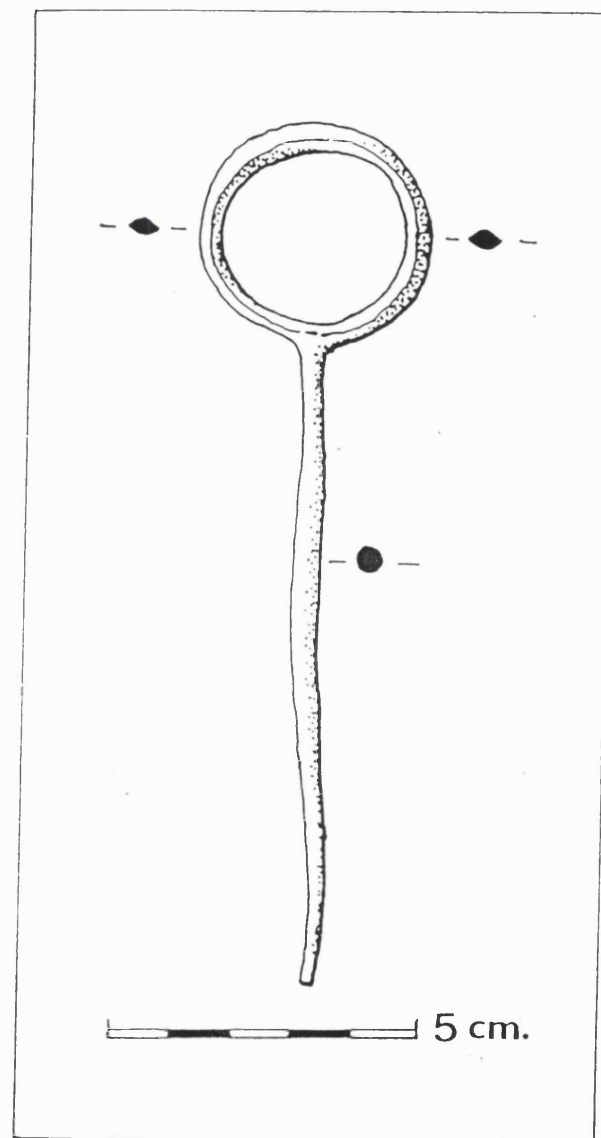
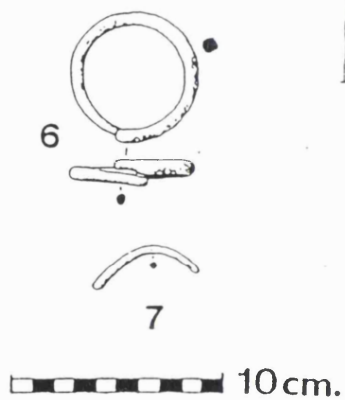
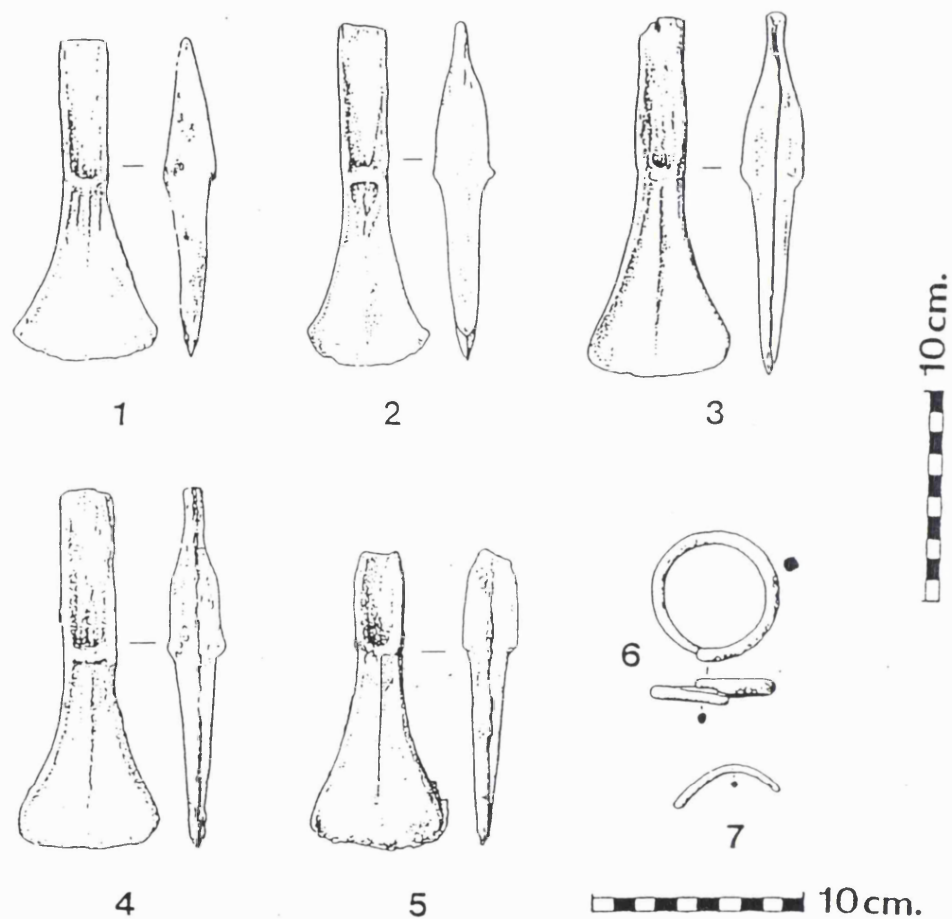


Fig. 4.5. The South Dumpton Down Hoard and Quoit Headed Pin from the same enclosure

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Western end of transect trench

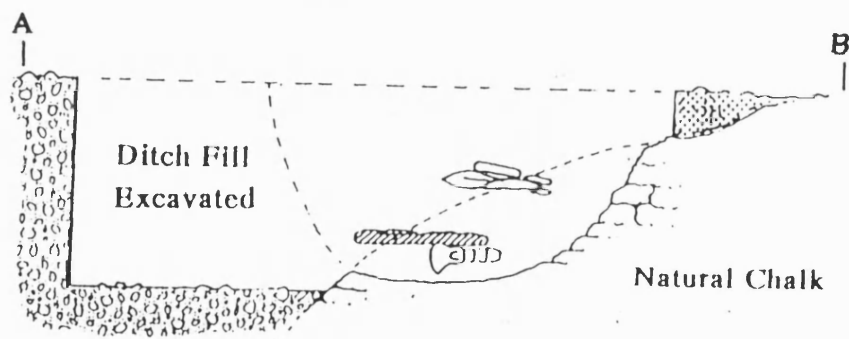
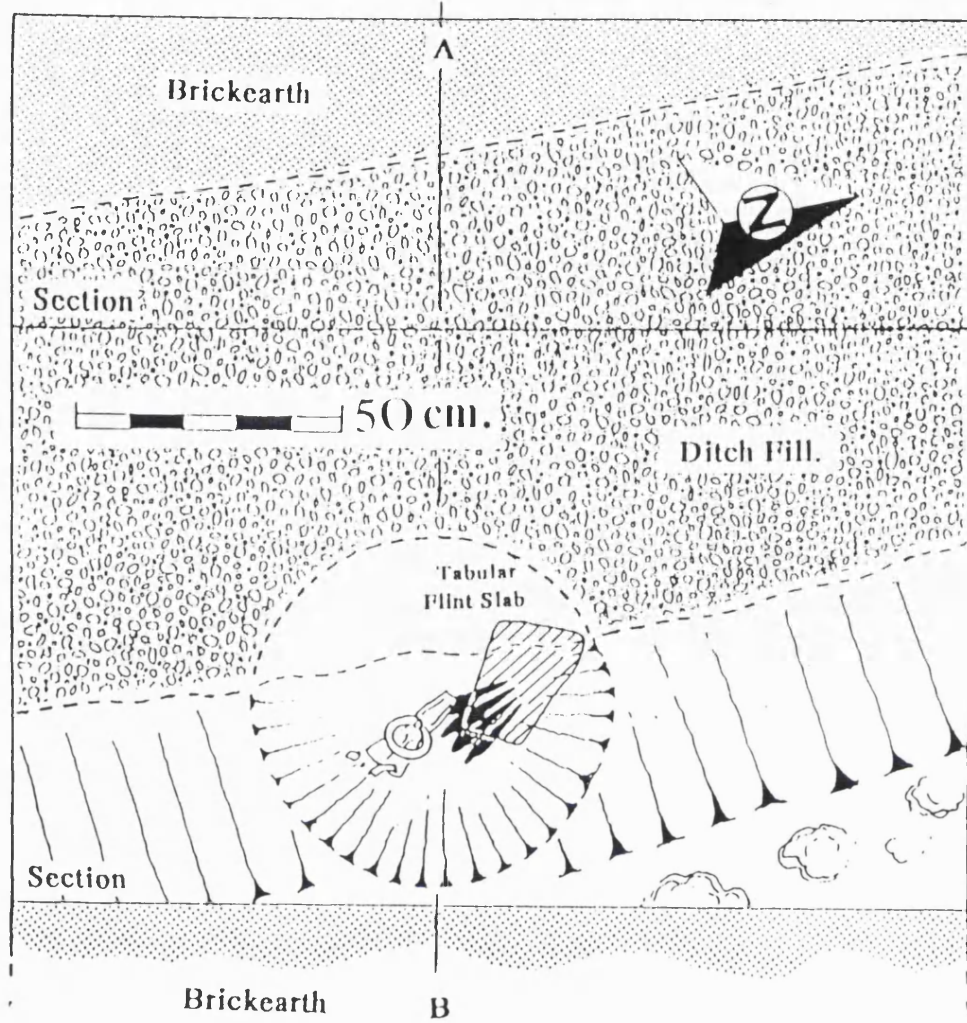


Fig. 4.6. The deposition of the South Dumpton Down Hoard

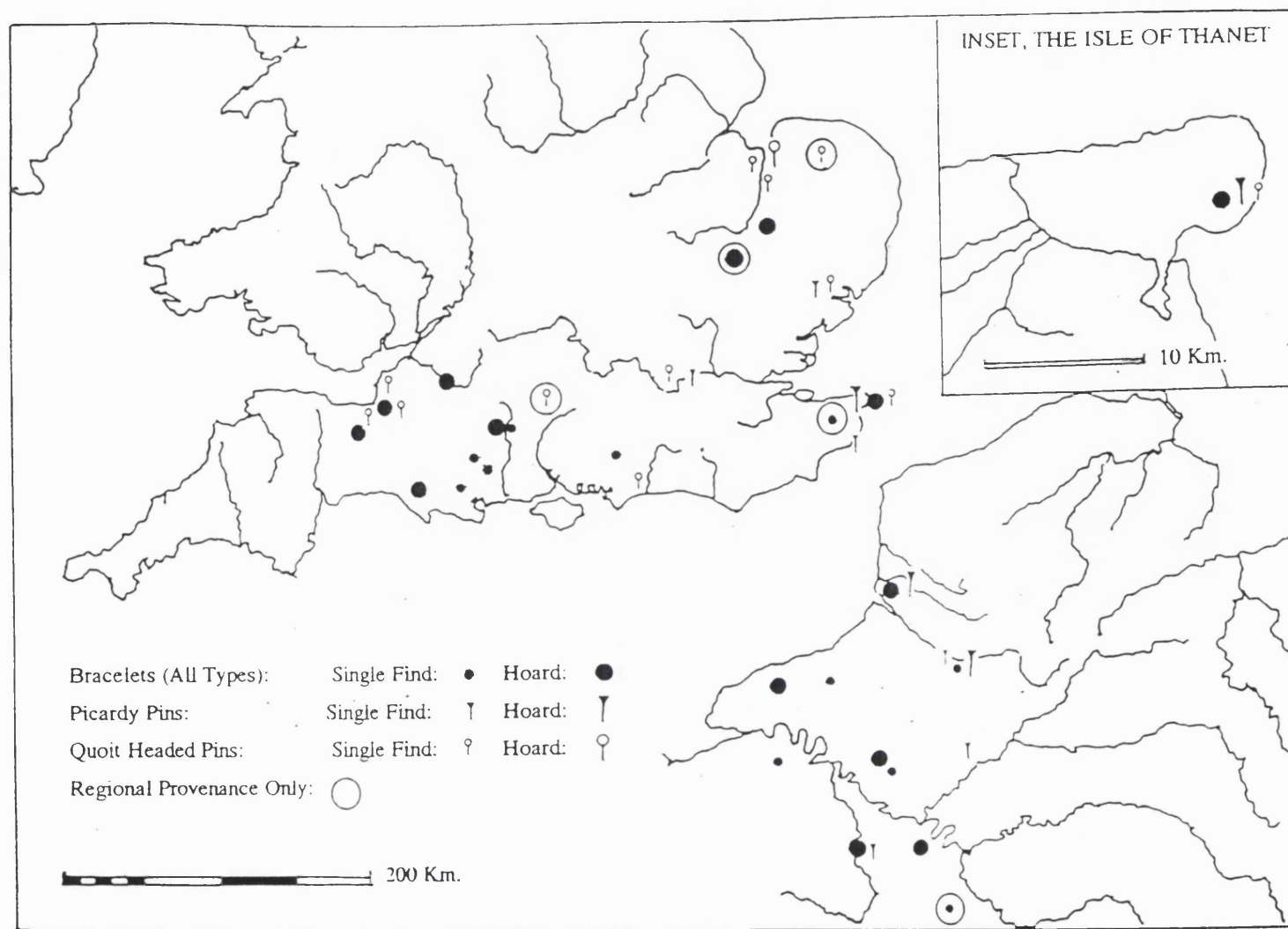


Fig. 4.7. The distribution of Bracelets, Picardy Pins, and Quoit-Headed Pins in Britain and Northern France to 1994

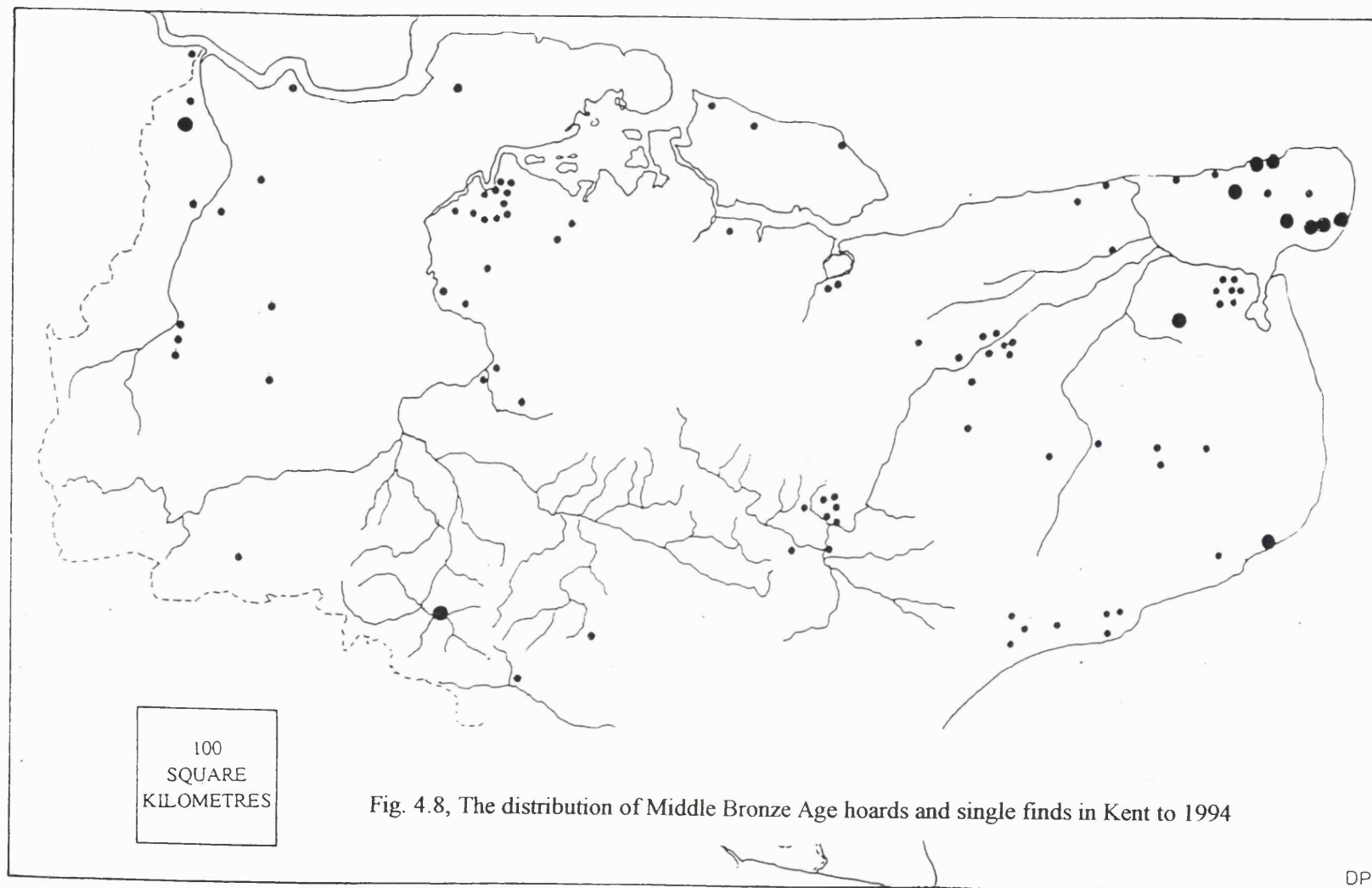
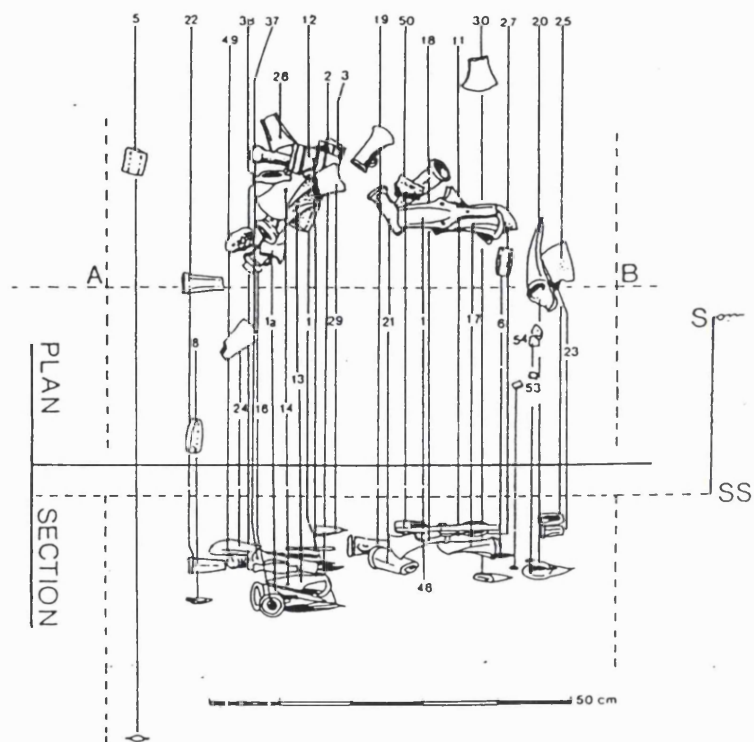
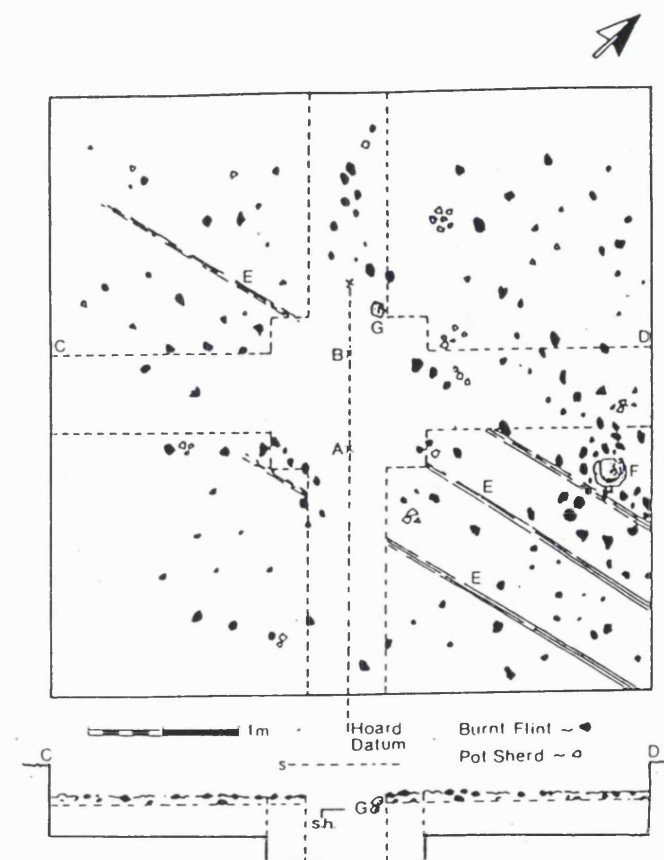


Fig. 4.8, The distribution of Middle Bronze Age hoards and single finds in Kent to 1994

DP



a): PLAN AND SECTION OF THE MONKTON II BRONZE HOARD AS EXCAVATED



b): PLAN AND SECTION OF THE IMMEDIATE CONTEXT OF THE MONKTON II BRONZE HOARD

Fig. 4.9. The deposition of the Monkton II Bronze Hoard

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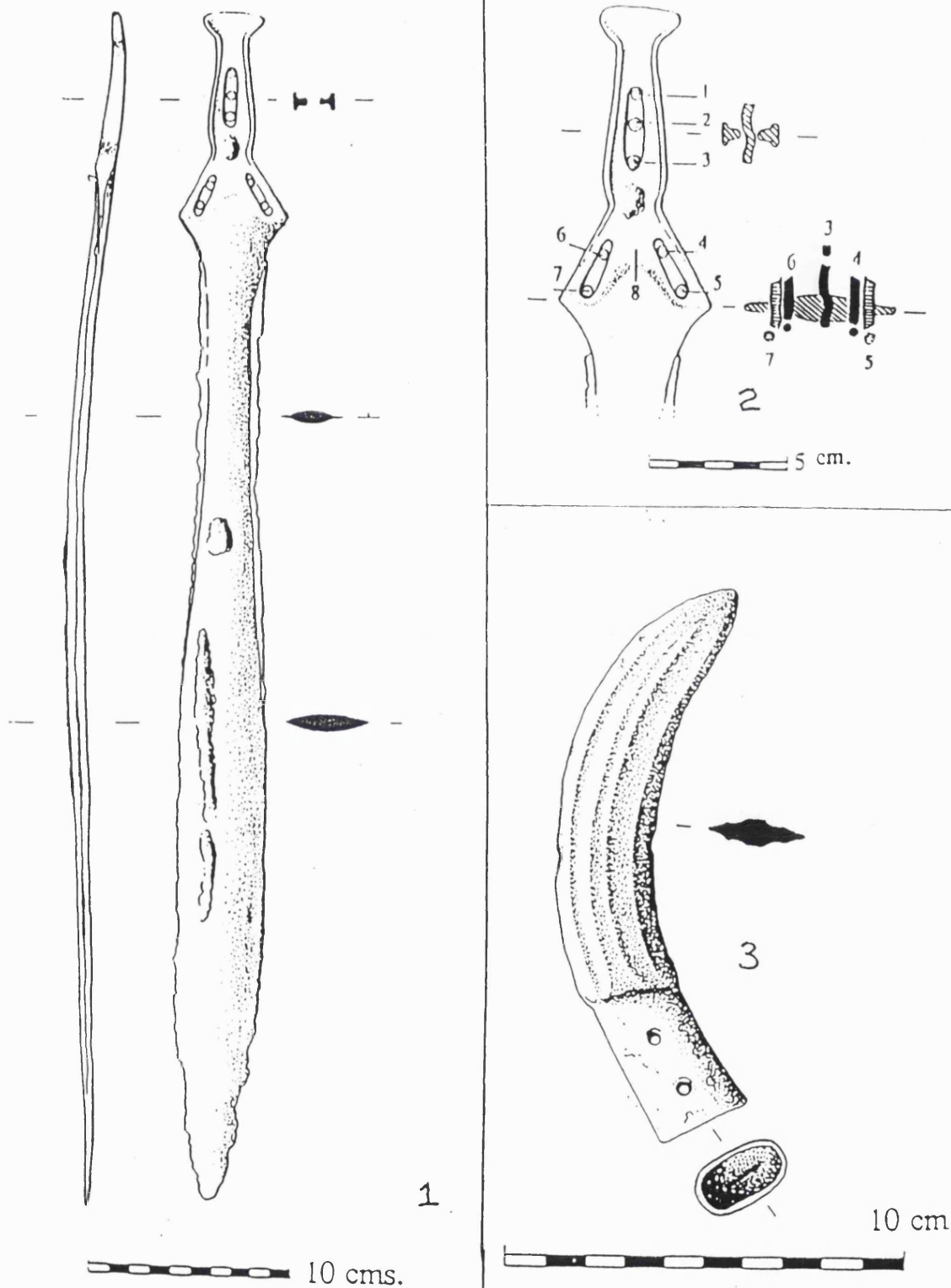
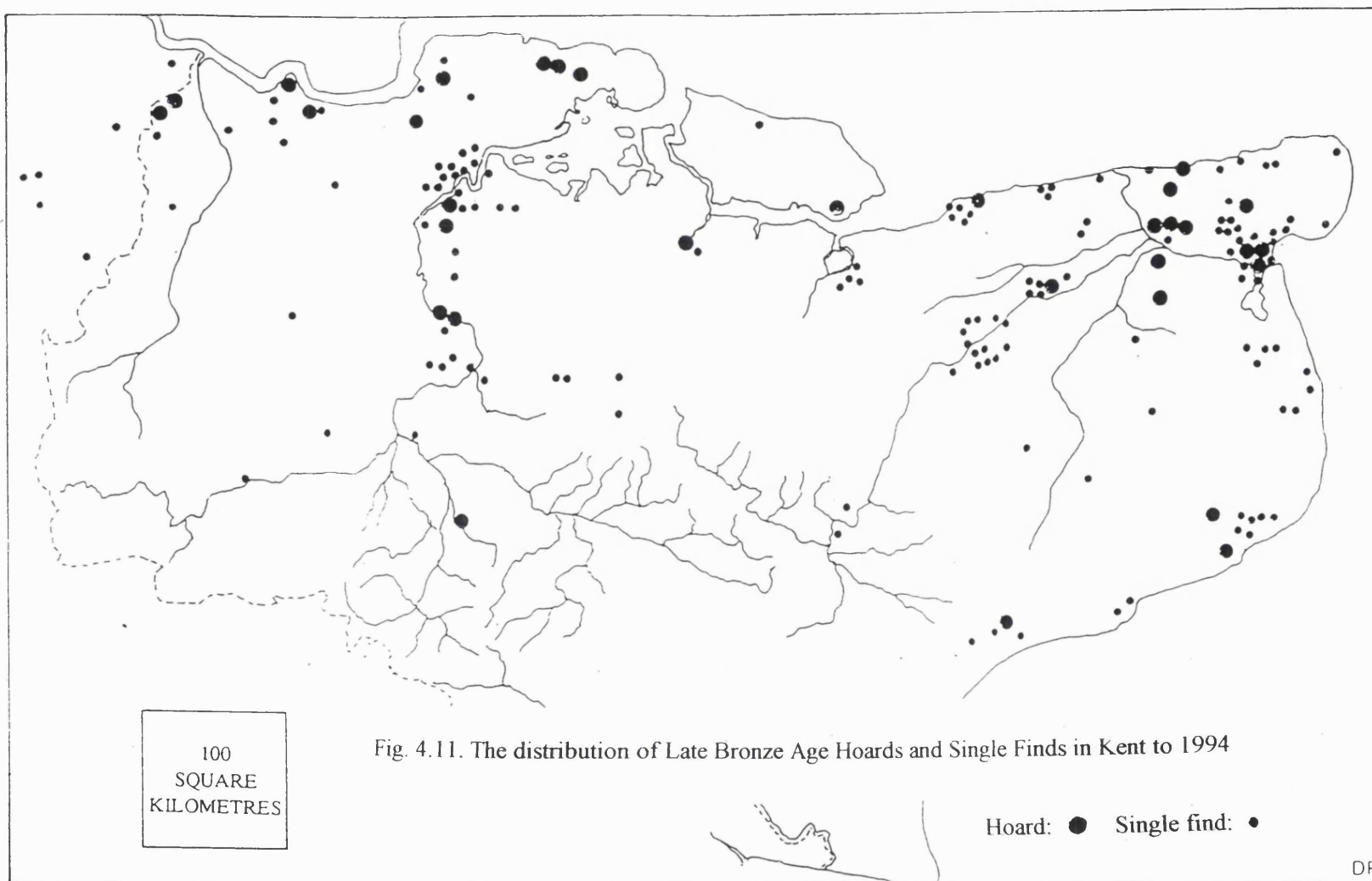


Fig. 4.10. The Blackmoor Type Sword from Shatterling with hilt detail and the Monkton Court Farm Sickle



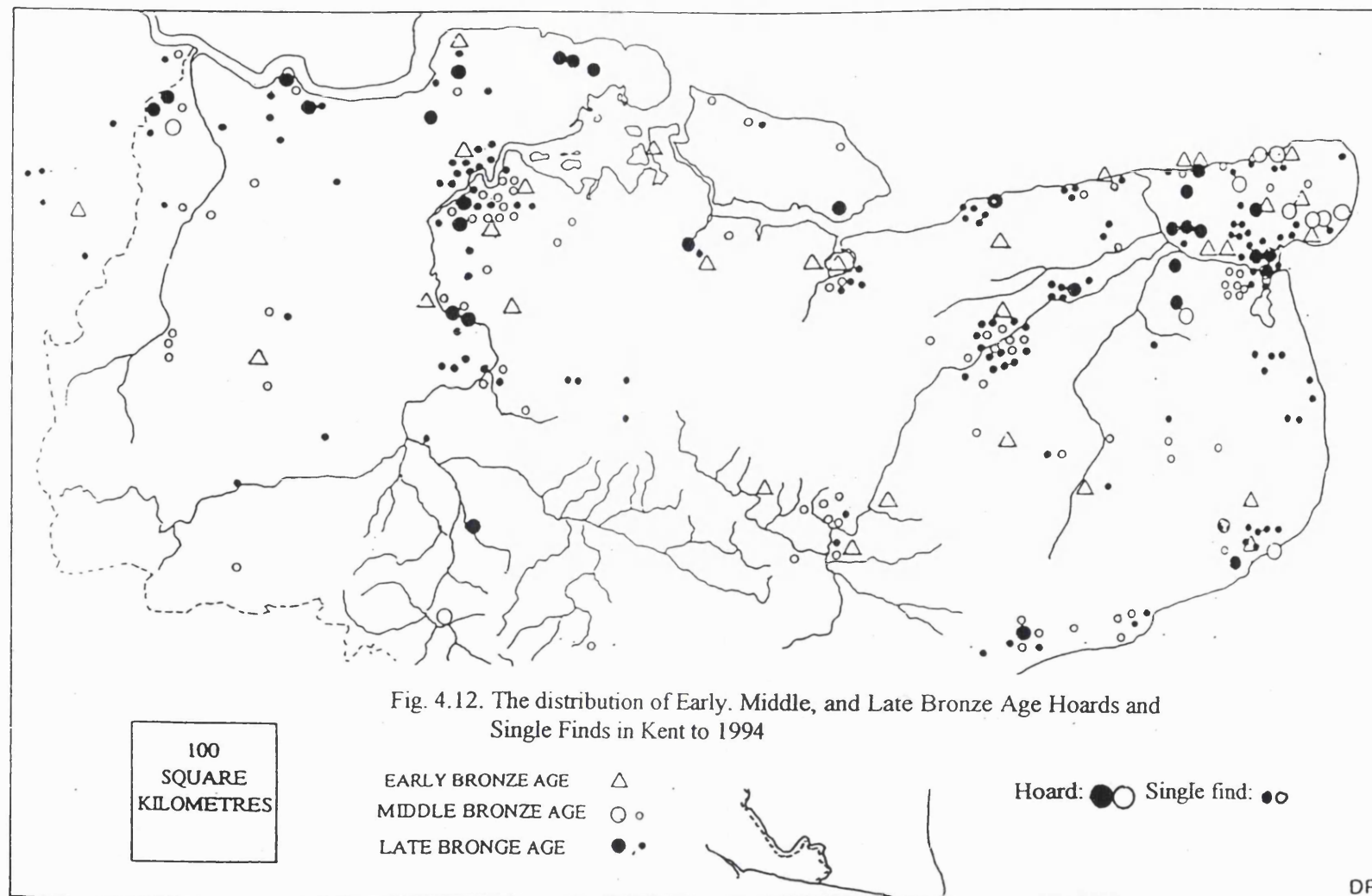


Fig. 4.12. The distribution of Early, Middle, and Late Bronze Age Hoards and Single Finds in Kent to 1994

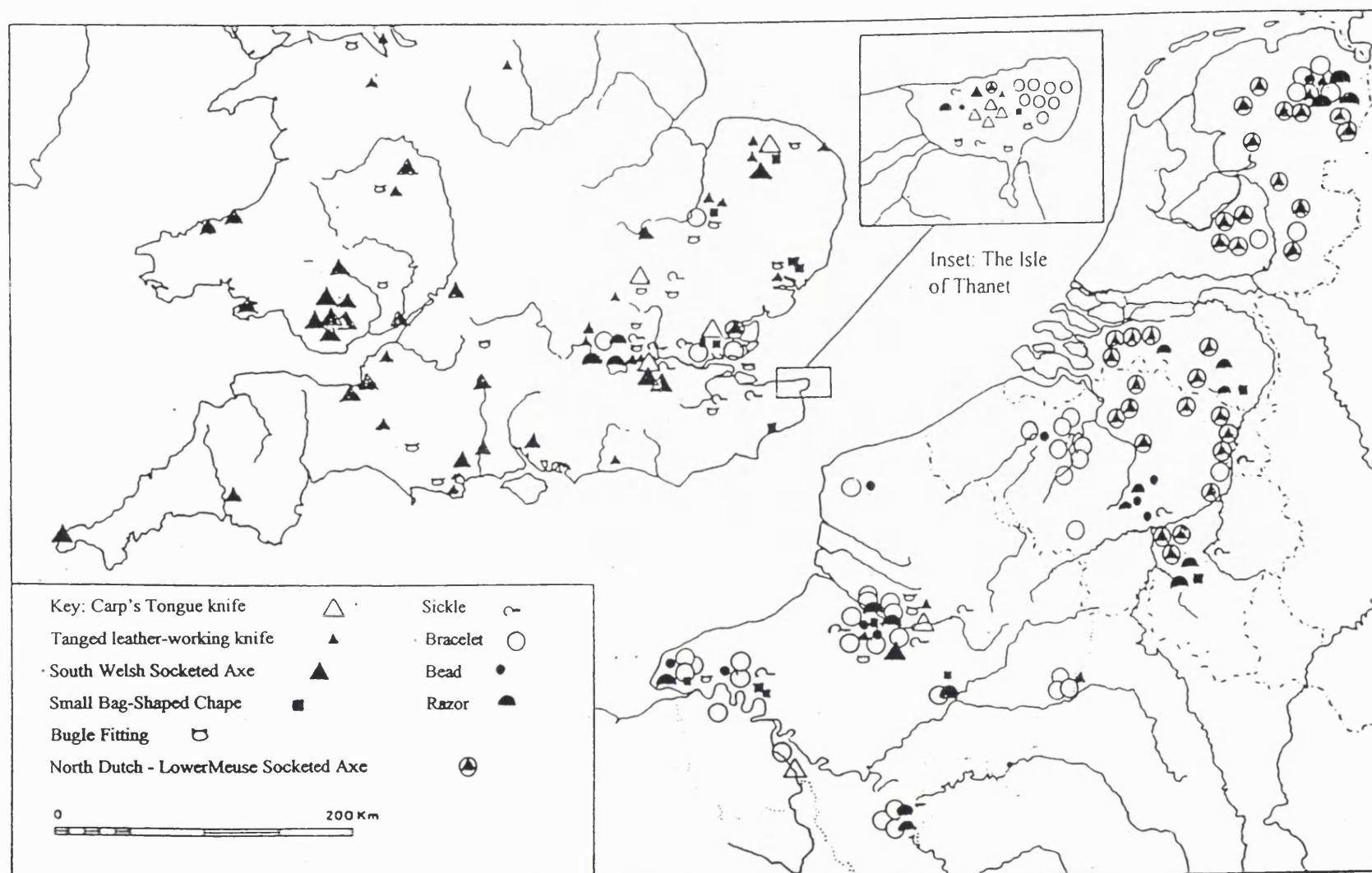


Fig. 4.13. The distribution of ten classes of Late Bronze Age bronze objects in Britain and Europe

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CHAPTER 5. THE DISTRIBUTION OF PREHISTORIC SETTLEMENT SITES IN KENT

5.1. Prehistoric settlement excavations in Kent, a brief review

In this chapter the evidence of prehistoric settlement sites in Kent is reviewed, and their distribution relative size and complexity is discussed. For the Neolithic period of which traces of occupation are often slight, settlement is herein attributed to sites having pits or graves containing pot sherds, worked flints, and midden materials, or to horizons holding concentrations of such materials. For subsequent periods additional evidence has been required in the form of enclosure ditches, earthworks, palisade trenches, posthole structures etc.

Applying the above criteria, only sixty-eight sites can be found to have been recorded in Kent to 1994. These are briefly catalogued in Appendix 5.2, Lists 1 - 7, with some un-published sites investigated by the writer and others being presented in more detail, and in some cases illustrated. The way in which emerging evidence from recent excavations allows a critical review of assumptions made in allocating certain forms of cropmark to prehistoric and later periods is discussed in Appendix 5.1.

The Neolithic period

Nineteen sites in Kent have yielded Neolithic material, a surprisingly small number bearing in mind the size of the county. The Neolithic archaeology of Kent seems to have been neglected in favour of Roman, Saxon, and later medieval sites, perhaps because of the lack of obvious field monuments (Clarke 1982). Of the nineteen sites, just over half were discovered accidentally during building work or brickearth extraction. The rest came to light through fieldwalking, or during limited research excavations, rescue excavations and watching briefs. In ten cases no attempt seems to have been made to investigate beyond the feature from which the sherds or flints were obtained, and in most of these instances excavation appears not to have been to scientific standard. On only three sites, all modern rescue or evaluation operations, has any investigation been made of the immediate and surrounding environment.

Qualitatively, the sites fall into two categories: pits containing midden material, and horizons with scatters of worked flints or pot sherds. A notable exception is the large grave pit with primary and secondary burials and (?ritually) broken bowl, found at Nethercourt Farm, Ramsgate, (Appendix 5.1, List A, Site 11). Of the Neolithic ceramic finds from Kent, 75% are in styles of the earlier Windmill Hill tradition, and with one exception (Chestnuts Megalith, Site 15) all find-sites are in Thanet or east Kent. Peterborough ware find-sites are in north or north-west Kent, with only one site (Chalk Hill, Appendix 5.2, Site 12) in Thanet. This 25% - 75%

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dichotomy is matched by the distribution of settlement sites, (Fig. 5.1). The locations favoured for occupation vary as to topography. In Thanet and at Folkestone and Deal, most of the sites are on chalk downland overlooking a coastal plain. Two of the Deal sites and one at Sittingbourne are low lying and close to an ancient shore-line, and one Thanet river bank site (Minnis Bay, Site 18) has been inundated. All other Kent sites are in, or overlook river valleys.

The Early Bronze Age

Settlement remains from the Early Bronze Age are rarely encountered in the south-east, although complete Beakers, beaker sherds, and characteristic flint assemblages are more common (see Chapter 7) and Kent has only four such sites (Appendix 5.2, List B, Sites 20 - 23. Of these even, two are suspect. The pits at Greenhill, Otford, (Appendix 5.2, Site 23) were interpreted as a temporary camp rather than a settlement (Pyke 1980, 239). At the Broomwood Site (Appendix 5.2, Site 20) the evidence for this earthwork being of Early Bronze Age date is extremely tenuous, consisting of an un-stratified flint scatter that could well be residual. Archaeologists in the area, some of whom remember the excavation feel that the enclosure may be later, perhaps much later, than the Bronze Age (pers. comm. Mr. P. Oldham). Work on all four sites resulted from either planned research, or planning requirements under PPG 16.

The Early Bronze Age enclosure at Laundry Hill, Minster, (Appendix 5.2, List 2, Site 21) is situated on the ridge of the Thanet downland escarpment at 50 m. OD, overlooking the ancient shoreline of the Wantsum Channel about 1.5 km. to the south. It possesses a commanding view of the North Downs from the hills above Canterbury to the Dover heights, and the coast of France, and lies midway in a 500 m. gap between two groups of round barrows. Although evaluation of the site by the writer was limited to sample trenching at the 4% level, sections of the ditch combined with a photogrammetric plot of the cropmark give good information as to the enclosure.

In plan it is an irregular elongated oval measuring roughly 40 x 80 m. with an area of about 0.27 ha., see Fig. 5.10. The four ditch sections were of truncated-V profile, and typically 2.0 m. wide and 1.0 m. deep. No internal features were observed within the enclosure, but the writer was at pains to preserve the subsoil horizon so that chalk bedrock was not exposed in the trenches unless it had a direct interface with topsoil. Several small pits were investigated outside the enclosure, and found to contain midden material. The lower half of fill in each of the ditch sections yielded beaker sherds, worked flints, animal bones and shells, but above this only an occasional pot boiler was found. Saxon remains apart, the only post-beaker material recorded consisted of sherds in the local Deverel-Rimbury fabric found in a small pit 30 m. north-east of the enclosure.

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The Holywell Coombe site (Appendix 5.1, List 2, Site 22) is situated on rising ground just at the demarcation between the Folkestone coastal plain and the rise of the North Downs. Because of the limited nature of excavations (trenching) its boundaries could not be defined and its size is unknown. An agricultural phase demonstrated by 'ard' marks was followed by posthole structures and a 'sunken way'. Silts from the latter feature were the subject of molluscan analysis by the writer, the results suggesting that the track, and perhaps the whole settlement existed in a woodland environment.

The Middle Bronze Age

Five Middle Bronze Age sites have been recorded in the county, of which four are in Thanet and one in west Kent (Fig. 5.3). Of the five, two were discovered by chance, two during research excavations, and one during required evaluation under the application of PPG 16. Three of the five, (Appendix 5.2, List 3, Sites 24, 25 and 26), have only been investigated at sample level, so that little is known of their potential, although the deposited Picardy pins and urn at St. Lawrence College (Appendix 5.2, List 3, Site 25) seem to suggest a 'high prestige' presence.

The enclosure at South Dumpton Down, Broadstairs (Appendix 5.2, List 3, Site 27) is the only Kent site to have been fully excavated. In plan it is unusual, the ditches forming an irregular elongated rectangle broken by causeway entrances, one staggered (Fig. 5.11). When seen however in the context of an adjoining enclosure (Features 306, 326), a minor ditch (Feature 320), and the major ditch (Feature 300) with which both enclosures align, the possibility must be considered that both enclosures were internal divisions within a much larger unit bounded and defended by the fosse. Stratigraphic evidence indicates that between the abandonment of the Middle Bronze Age enclosure and the Late Bronze - Early Iron Age phase of occupation, slow but cataclysmic changes occur to site geology, perhaps originally causing the abandonment (Perkins 1995d). It appears that over much of the site up to 1.0 m. of brickearth overburden and topsoil cap was lost to erosion, so that by the Iron Age occupation only about 0.30 m. of overburden remained, poor thin soil colonised by woodland and scrub. Because of this, only deep-cut Middle Bronze Age features have survived and much evidence for the true scale of occupation during the period will have been lost.

At St. Mildred's Bay, Westgate, (Appendix 5.2, List 3, Site 28) investigation of the Middle Bronze Age enclosure was limited to cutting two sections of the ditch and parallel internal palisade trench, and a close scrutiny of the brickearth surface within the enclosure ditch and outer surrounding bund. It was however possible to plot about 80 m. of ditch and an extension running from it (Fig. 5.12). An oval plan for the enclosure seems indicated by the curve taken by the ditch.

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The Late Bronze Age

This period is represented in Kent by nine settlement sites, all in east Kent with six of them in Thanet, see Appendix 5.2, List 4, Sites 29 - 37, and Fig. 5.4. A tenth site can be suspected on the Medway at Frindsbury where a pit yielded a socketed axe and a perforated clay plaque (Arnold 1887) but the site was subsequently destroyed by quarrying. Of the nine sites, three were found accidentally (Appendix 5.2, List 4, Sites 29, 30 and 35), one, Monkton (Appendix 5.2, List 4, Site 32) as a result of research evaluation, and the rest through the application of PPG 16 or the preceding local planning requirement. Two sites (Appendix 5.1, List 4, 29 and 35) are situated in the inter-tidal zone on the banks of ancient stream beds. The rest are all on chalk downland escarpments, or in the case of Highstead (Appendix 5.1, List 4, Site 31) on an ancient gravel terrace of the Stour at an equivalent elevation. Only the Highstead site has been investigated to any extent, the others being sampled at evaluation levels, although at Minnis Bay (Appendix 5.2, List 4, Site 29), all observed features were excavated.

The dimensions of the Minnis Bay site are unknown with only an area of 0.09 ha. being examined. Ditched enclosures at Mill Hill, Highstead, Hartsdown, and Chalk Hill (Appendix 5.2, List 4, Sites 30, 31, 34, and 37) would all seem to be roughly of the same size, c. 0.25 ha. as do the un-enclosed sites at Ebbsfleet and St. Mildred's Bay (Appendix 5.2, List 4, Sites 33 and 35). The enclosures at Monkton and Herne Bay (Appendix 5.2, List 4, Sites 32 and 36) are much larger however, their areas being in the order of 2 - 4 ha. At both these sites, and at Mill Hill and Highstead, there is evidence of bronze working/casting on site, and at Monkton at least one of three, possibly four bronze hoards was buried under the floor of a hut (Perkins 1991a, 247).

The Late Bronze - Early Iron Age Period

Thirteen sites of this period have been excavated or sampled in Kent, (Fig. 5.5), and Appendix 5.2, List 5, Sites 38 - 49 (Hartsdown Site 45 has two enclosures). Of these seven were in Thanet, one at Ashford, and five in the Canterbury area of the North Downs. Irrespective of size and plan, the sites fall into two categories, open and enclosed. The open sites seem often to have no fixed boundaries, or at most a palisade fence. Enclosed sites however possess ditches of defensive dimensions. Of the sites listed, seven are of open type and six are enclosed, although one (South Dumpton Down, Site 43) is a special case open to both interpretations, (see below). Does the lack of a surrounding ditch indicate a feeling of security on the part of the settlement inhabitants, engendered perhaps by the proximity of a strongly defended enclosure? At Hartsdown, Margate, Enclosure A (open with palisade) was only about 50 m. away from Enclosure B (defensive ditches and palisades), the two sites seemingly contemporaneous (Perkins 1995c).

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The degree to which some of the listed sites have been exposed for examination, especially in the case of 'open' type sites has made determination of their size and plan difficult. Two Sites (41 and 42) appear to be sub-circular however, and four of the Thanet sites (Appendix 5.2, List 5, Sites 43, 45 A and B, and 47) are either rectangular or rectilinear complexes. This has implications as to the way in which Kent's SMR cropmark lists have been ordered, (see discussion).

The Middle Iron Age

Only four sites belonging to this period have been investigated in Kent, (Fig. 5.6) and Appendix 5.2, List 6, Sites 50 - 53. Each site consists of a large defended enclosure, or in the case of Site 51 (South Dumpton Down, Broadstairs) an occupation phase within such an enclosure of earlier construction. Two of these sites are in west Kent, and two in Thanet.

Caesar's Camp, Keston, (Appendix 5.2, List 6, Site 50) is a multivallate hill fort enclosing an area of 12 ha. (Piercy-Fox 1969). At North Foreland Hill, Broadstairs, (Appendix 5.2, List 6, Site 53) the bivallate defences appear to enclose an area of at least 24 ha. Urban development makes it impossible to determine whether North Foreland is a hill fort or a promontory fort. A now well established rate of erosion of the chalk cliffs of Thanet of 30 m. \pm 2.5 m. per century (Perkins 1987a) makes the former possibility the more likely, as the fort would have had to extend over 600 m. eastward from the visible western ditch line to reach a cliff edge in 300 BC, making the enclosure implausibly large. At Castle Hill, Tonbridge, (Site 52) there are two adjoining univallate contour forts, with a combined area of 2.21 ha. Uncalibrated radiocarbon estimates (Appendix 11, 5) suggest an eighty year interval between construction of the two forts, and archaeological investigation suggest the destruction and abandonment of the earlier enclosure (Money 1975).

The defences of the univallate promontory fort at South Dumpton Down, Broadstairs, would appear from stratigraphical evidence (Perkins unpublished) to have been constructed in the Middle Bronze Age, the site being then abandoned. It was re-occupied and refurbished in the Late Bronze - Early Iron Age period, with a Middle Iron Age presence at a lower level of activity. Nevertheless, stratigraphical evidence from the ditch which enclosed at least 7 ha. indicates that it was maintained as a viable defence and as a sunken way until early in the Roman era.

The Late Iron Age - 'Belgic' Period

Fifteen sites of this period have been investigated in Kent (Fig. 5.7 and Appendix 5.2, List 7, Sites 54 - 68). Of these nine are in Thanet, three in the Canterbury area of east Kent, and three in west Kent. The three west Kent sites at Oldbury Hill, Igtham (Ward-Perkins 1939.

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Appendix 5.2, List 7, Site 55), Squerryes, Westerham (Piercy-Fox 1970. Appendix 5.2, List 7, Site 56) and Quarry Wood, Loose (Kelly 1971. Appendix 5.2, List 7, Site 58) are all hill forts, that at Oldbury covering 50 ha. East Kent has only one Late Iron age hill fort, that of Bigbury Camp near Canterbury (Appendix 5.2, List 7, Site 54), although there was certainly a Belgic presence at some level of occupation in the Middle Iron Age fort at North Foreland in Thanet (Appendix 5.2, List 7, Site 53). Site 53 and the enclosure at Sarre (Appendix 5.2, List 7, Site 59) might claim the status of a promontory forts, the latter since it occupied the downland ridge of a peninsular in the Wantsum Channel.

The remaining ten sites are all smaller settlements, their areas in most cases suggesting occupation by a small social unit such as a farm that might be operated by a single family and retainers. Eight of the sites are ditch enclosed and two apparently open. With the exception of the 'circular camp' at Sturry (Site 57) the enclosures are rectangular or of complex rectilinear plan. In mainland Kent the sites are inland, and on high ground overlooking river valleys. Eight of the Thanet sites are on the downland escarpment just in from the ancient coastline, the exception being that at Hartsdown, Margate, situated in a valley bottom beside the watercourse of a stream.

5.2. Discussion; an interpretation of the data

The theme of this discussion is to analyse in quantitative and qualitative terms the distribution of prehistoric settlement sites in Kent, so as to weigh the evidence for an east Kent - Thanet cultural focus. The data from which the distributions have been assembled is that of the published archaeology of Kent over the last one hundred years. No regional bias can be attributed to this data, as the county is more or less homogeneous with regard to the factors attending archaeological discovery. It can be confidently asserted that north-east Kent and Thanet in particular, is, and has not been, more well endowed with archaeologists or urban and industrial developments leading to discoveries than the rest of the county. Arguably less so, as Kent's industrial base and population concentration is focused on the Medway and north-west Kent.

The Neolithic period

In her review of Kent's Neolithic archaeology, Clarke (1982) remarked that:

"In common with much of lowland Britain, the evidence for Neolithic settlement in Kent is limited to isolated pits and artefact scatters."

Even so, she felt that the period had been neglected by the county's archaeologists, who had favoured the more spectacular and visible Roman, Dark Age, and Medieval remains. She urged therefore that Neolithic research should become a county priority, an aim that has regrettably not

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been realised. With only nineteen clearly defined settlement sites recorded in Kent, the distribution examined below must be considered with caution.

From the data to hand in 1982, Clarke produced a distribution plan for Kent, showing all finds, sites with pottery, megalithic monuments and long barrows (Clarke 1982, 26, Fig. 8). An edited and up-dated distribution plan is given herein as Fig. 5.1., in which only sites combining pottery finds with pits or other features is shown. As can be seen, there is a marked bias towards east Kent and Thanet, with 74% of the sites being in that area, 21% in Thanet. The two most significant clusters of sites are those on the coastal plains at Deal and Folkestone. Qualitatively, there seems little to choose from among this tenuous assemblage of remains other than perhaps the burials and bowl from Nethercourt Farm, Thanet, (Appendix 5.2, List 1, Site 11).

The Early Bronze Age

With only four recorded settlement sites of this period in Kent, and one of these is suspect (Appendix 5.2, List 1, Site 20, Broomwood, St Paul's Cray) little can be said of this distribution other than that two of the sites are in east Kent (Fig. 5.2) and are situated in the county's two concentrations of round barrows and beaker finds, see Chapter 3.2, Fig. 3.2 and Chapter 7, Fig. 1. Why then the paucity of settlement evidence? This is not a purely Kentish phenomena. If the definition of an Early Bronze Age domestic settlement is restricted to those enclosed by banks and ditches with hut plans and working areas, then as Alex Gibson (1986) has pointed out:

"Only thirty to forty have ever been encountered by British archaeologists, most of them in the north of the country."

It has variously been suggested (Bradley 1978, Fowler 1983 and Barrett 1994) that throughout large areas of Britain Neolithic - Early Bronze Age economy was very largely pastoral, augmented by small scale cereal growing and hunter gathering, this necessitating transhumance, a fluid semi-nomadic life style. This view has since been modified in the light of further fieldwork (Bradley 1984, Barker 1985) but not dismissed in its entirety. If such an economy appertained on the chalk Downs, then east Kent's barrows and Beakers presumably represent the solid evidence for such a society, the remains of village 'encampments' being so ephemeral as to usually escape detection. Sites 22 at Folkestone and 23 at Otford may well be examples of such communities. The ditched enclosure at Minster, Thanet constitutes therefore a dramatic departure from the norm. Was it established to exploit a local resource, or did it function as a centre for administration and/or the exchange of goods?

The Middle Bronze Age

Five settlement sites of this period have been recorded in Kent, one (Hayes Common, Appendix 5.2, List 3, Site 24) in the extreme west of the county, and the other four in Thanet,

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Fig. 5.3. No estimation of plan or area is possible for the Hayes Common site or Site 25 at Hollicondane, Ramsgate, but Site 26 at Netherhale Farm, Birchington, and Site 28 (Appendix 5.2, List 3) at St. Mildred's Bay, Westgate, appear to be of sub-circular plan and were about 30 and 50 m. in diameter respectively. Three of the Thanet sites are situated on downland escarpments, and the fourth at St. Mildred's Bay would, before marine inundation, have been located on a valley bottom river bank. Three of the Thanet sites have yielded ornament horizon or ornament hoards (Chapter 4).

The enclosure at South Dumpton Down, Broadstairs (Appendix 5.2, List 3, Site 27) is of outstanding interest, not only in being one of a very few Middle Bronze Age enclosures to be fully excavated, or in yielding a quoit-headed pin and an ornament hoard, but in seemingly forming a component of a much larger site. It and an adjoining enclosure (Fig. 5.11), respect and align with a great ditch that can be postulated as the defensive boundary of a promontory fort (Fig. 5.13). Although re-cutting of the ditch during successive Late Bronze Age, Iron Age and Roman occupation phases has removed nearly all traces of earlier fills, a small patch of silt had survived on the western rise of the ditch-cut to prove it contemporary with the enclosures. This held sherds in the local Deverel-Rimbury fabric, and sealed a small pit containing a broken urn (Fig. 5.11 Feature 178). Destructive re-use of the site during later prehistory and building this century has made it impossible to further trace the line of the ditch or search for more Middle Bronze Age remains within its boundary. From what is known however, the occupants of the enclosures lived within a large and imposing feature. While bearing in mind the challenged validity of Ellison's 'Central Enclosures' (Chapter 1.1) her postulated 'major re-distribution settlement enclosure awaiting discovery in east Kent' would certainly find a candidate here.

The Late Bronze Age

Of the nine investigated sites of this period, six are in Thanet, and three nearby in north-east Kent (Fig. 5.4). Two of the sites, Site 29 Minnis Bay and Site 35 at St Mildred's Bay (Appendix 5.2, List 4) are in the inter-tidal zone, and their investigation has yielded no defined boundaries or idea of a plan. Two other dry-land sites, Site 37 at Chalk Hill, Ramsgate, and Site 33 at Ebbsfleet (Appendix 5.2, List 4) are equally un-defined. Qualitatively, the rest of the enclosures fall into two distinct groups.

The first includes the two adjoining enclosures at Highstead (Appendix 5.2, List 4, Site 31), four enclosures at Hartsdown (Appendix 5.2, List 4, Site 34), and the single enclosure at Mill Hill, Deal, (Appendix 5.2, List 4, Site 30). All are of sub-circular or sub-rectangular plan, and under 0.5 ha in area.

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The second consists of the playing card shaped enclosure at Eddington Farm, Herne Bay, (Appendix 5.2, List 4, Site 36), with its wide (7 m.) defensive ditch and evidence of metal working, and the un-defined enclosure at Monkton (Appendix 5.2, List 4, Site 32), also with ditches of imposing dimensions, three bronze hoards, and numerous hut circles. These two enclosures, in area of 1.8 ha., and at least 3.25 ha. respectively, are so much larger than the first group, and rank among the largest sites of the period at national level. N. Macpherson-Grant (pers. comm.) believes the Eddington Farm site to be a high status settlement, and agrees with the writer that the Monkton enclosure was likely during its short period of occupation to have enjoyed the same status.

The Late Bronze - Early Iron Age

Of twelve sites of this period (Fig. 5.5.) five are on the chalk downland in Thanet with one on the ancient shoreline, four on escarpments of the Little Stour river valley, another on the Stour, and one at the confluence source of the Stour near Ashford. As detailed in the last section and Appendix 2, eight of the sites were only sampled during watching briefs and are therefore ill defined. The available evidence suggests however, that none of them was large, and that they are probably on a par in area with the adjoining open and enclosed sites evaluated at Hartsdown, Margate. Three Thanet sites present a very different picture. At South Dumpton Down and Sarre (Appendix 5.2, List 5, Sites 43 and 47) there were enclosures of the promontory fort type, in area 7.2 ha. and 6+ ha. respectively. Excavated sample areas indicate that within their defensive boundaries, habitation was dense and settlement long term. Similar settlement remains at Ebbsfleet (Appendix 5.2, List 5, Site 49) extend over at least 8 ha. within boundaries formed by the shores of a peninsular. The nature of these three sites in the context of a Thanet community, is that South Dumpton Down on the exposed east coast of the island within strong natural and constructed defences could have had no role in trade, while Sarre and Ebbsfleet on the sheltered Wantsum Channel shore were ideally situated as entrepôts, and in the case of Sarre, situated on the narrows, to the control of Wantsum Channel navigation.

The Middle Iron Age

Only four sites from this period have been recorded, two in Thanet and two widely spaced in west Kent (Fig. 5.6). Three were clearly constructed as 'hillforts,' and the fourth at South Dumpton Down represents an occupation phase within the ditches of an earlier 'promontory fort.'

The Late Iron Age - 'Belgic' periods

Of fifteen recorded sites, nine are in Thanet, three in east Kent, and three in west Kent (Fig. 5.7). While numerically this distribution favours Thanet with 60% of sites, qualitatively the

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emphasis now changes. The Thanet sites are relatively small domestic enclosures, but at Bigberry near Canterbury and at Igham Westerham and Loose, imposing hillforts were constructed. This seems to suggest that Thanet and the Wantsum area were diminishing in importance, and that the distribution of *recorded* sites does not reflect the true situation. The distribution of Belgic ceramic finds (Chapter 7, Fig. 7.9) would seem to confirm this.

A summary of the distribution evidence for all periods

The distribution plans, Figs. 5.1 to 5.7 show that for all the periods, Kent's investigated prehistoric settlement sites are concentrated in north-east Kent with a particular bias towards the Isle of Thanet, (Fig. 5.8). In percentage terms, east Kent including Thanet has 79% of all the sites, with Thanet holding 47% of all Kent's sites, and 59% of all east Kent sites. Thanet's share is rendered the more impressive when it is remembered that the Isle constitutes only 2.2% of the county's land area. Qualitatively, from the Early Bronze Age to the Middle Iron Age, the most impressive sites of each period in terms of size, complexity and high prestige chattel finds are likely to be found in Thanet. Since as previously pointed out, no modern cultural factor exists to influence the discovery of settlements in favour of east Kent, rather the reverse in fact, these distributions must surely be considered as highly significant.

Whereas Thanet until the Late Iron Age was well endowed with significant enclosures, thereafter, although obviously still populous (Fig. 5.7) the emphasis changes, with the appearance in west Kent of hillforts. Cunliffe (1982) points out that these are late developments by comparison with Wessex, and suggests that they reflect population stress and socio-economic change. In an alternative view of British Iron Age society (Hill 1995a, 1995b) the nature of hillforts as fortresses, administrative foci, or centres of manufacture, exchange and distribution is argued against on the basis of lack of evidence for such functioning. Hill (1995b, 47-49) believes that we can only define them as 'not farmsteads.'

Accompanying the later stages of what seems to have been a profound demographic transformation came sudden improvements in long distance trade. Cunliffe (1982) identifies the two new major sea routes for continental trade as 'a direct route along the Atlantic coast of France to central southern Britain,' and 'a shorter crossing between Belgica and the south-east of Britain focusing on the Thames estuary'. The revolutionary improvements in ship design that made such routes possible, and their catastrophic effect on a Thanet 'gateway community' is discussed in Chapter 9.

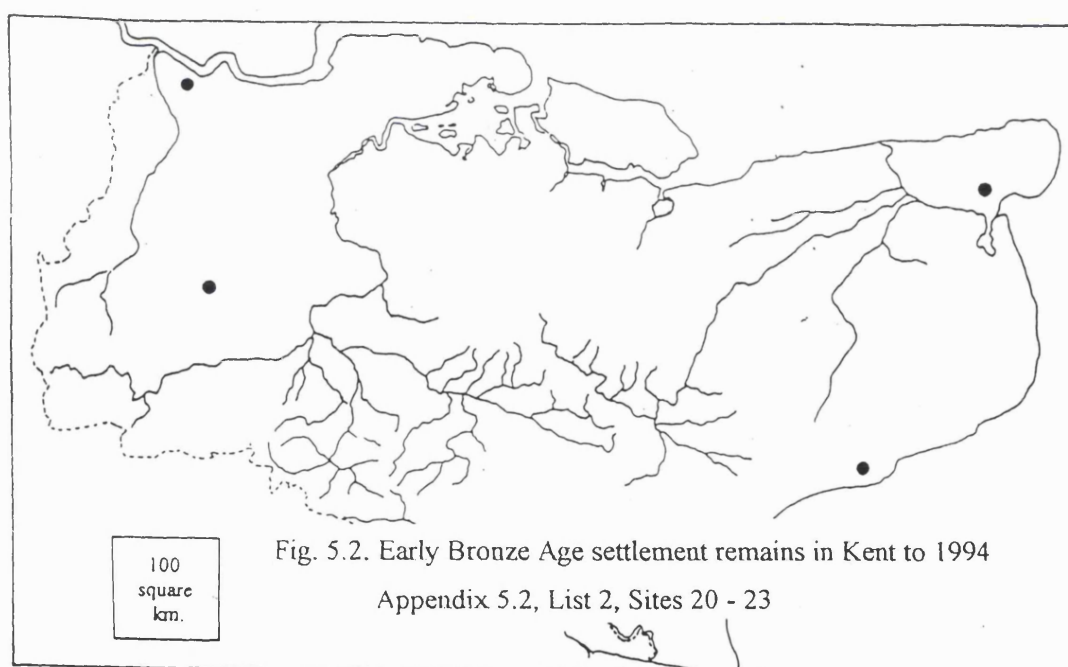
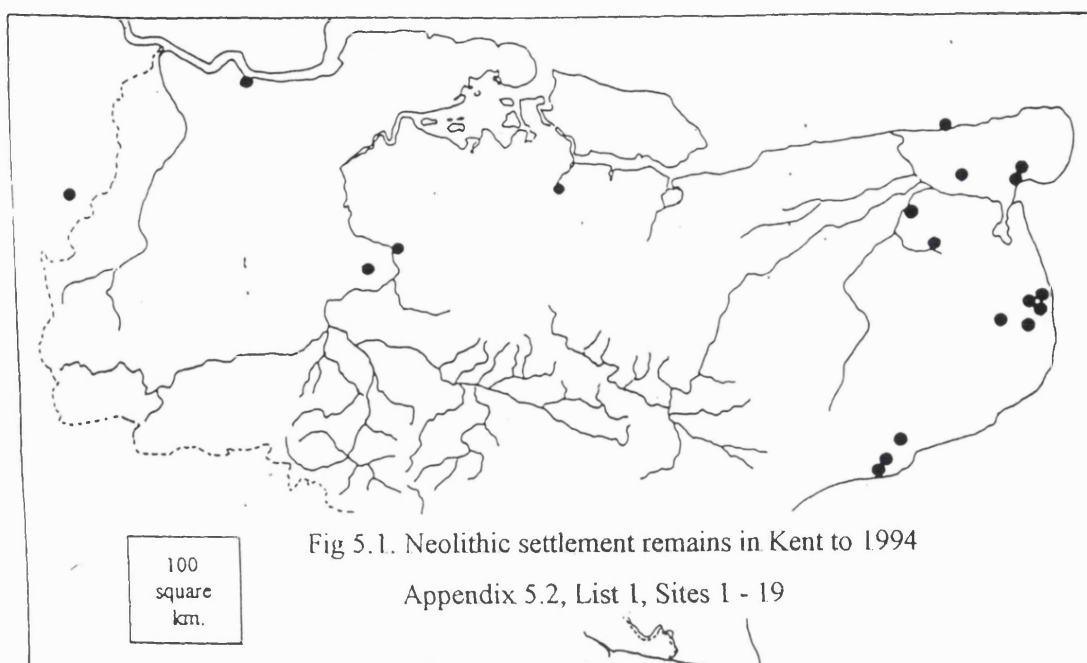
The topographical distribution of the Thanet settlement sites

The topographical distribution of the Thanet settlement sites of all periods listed in this chapter is shown in Fig. 5.9. From this it can be seen that there are only preferred locations for

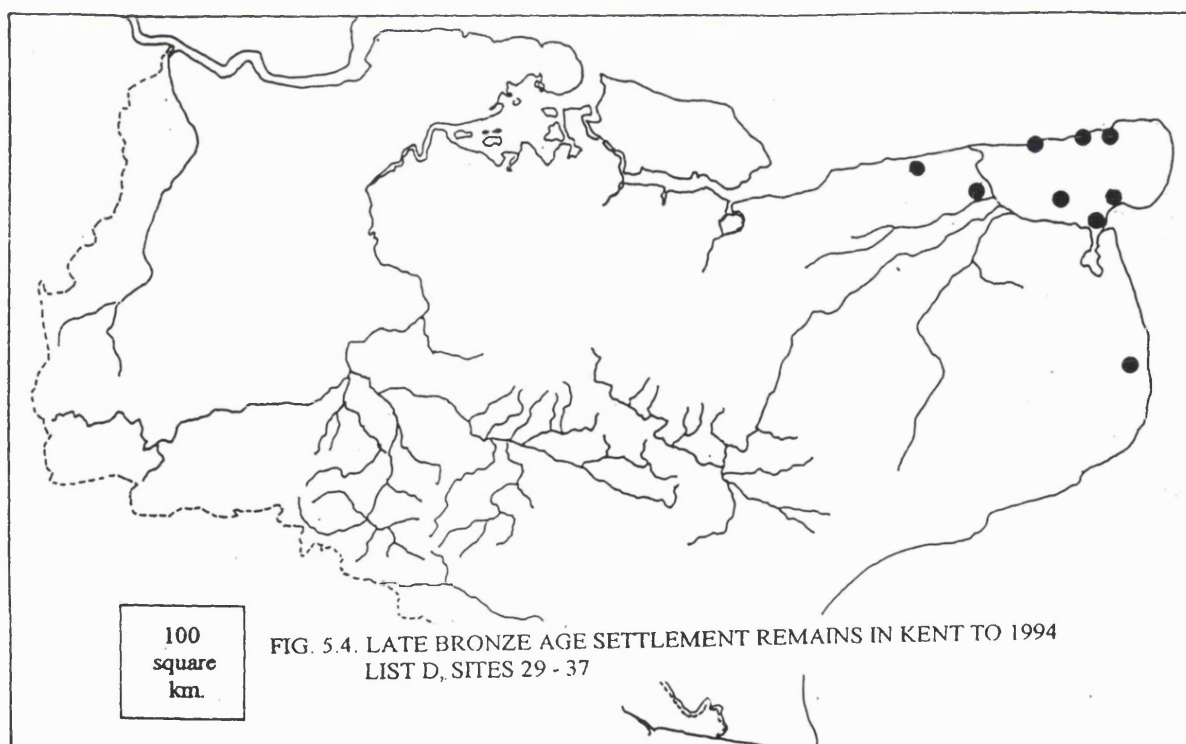
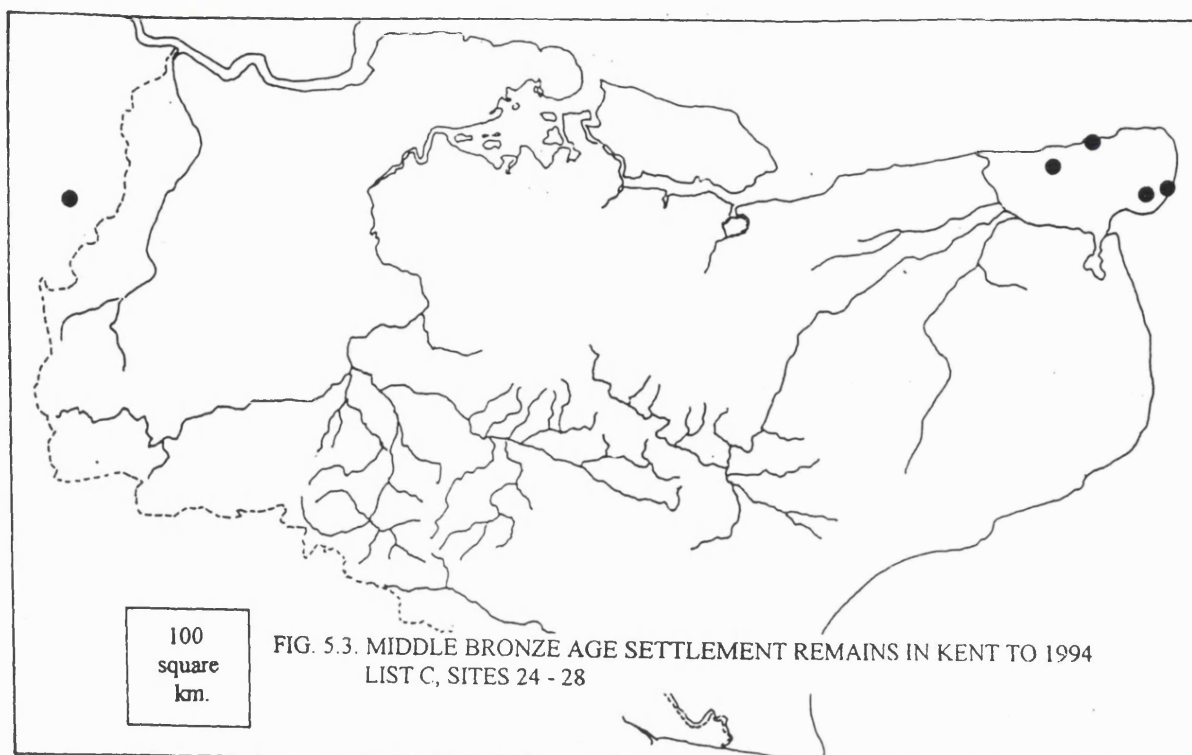
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settlement: coastal, on the downland escarpment overlooking the shore, or riverain, on the escarpments of river valleys (now dry) leading via Thanet's 'sea-gates' to the shore. No prehistoric settlement remains have been encountered on the island's central plateau, and cropmark evidence supports this, although revealing numerous sites attributable to the Roman and later periods. On the other hand aerial survey has recorded a number of probably prehistoric sites that serve to fill in gaps in the 'coastal circle'. In particular, extensive cropmarks indicating a settlement of open type occupy the river valley at Brooksend in the north-west of the island. There are long gaps between sites on the eastern and northern coast of Thanet between Ramsgate and Margate, but along this stretch the fall of the escarpment is very steep, terminating in tall chalk cliffs. Cliff erosion at a rate of 30 m. a century means that many sites could have been lost. In summary therefore, the evidence indicates that proximity to the sea or quick water-borne access to it determined the location of prehistoric settlement in Thanet, this further suggesting a local preoccupation with trade and maritime pursuits.

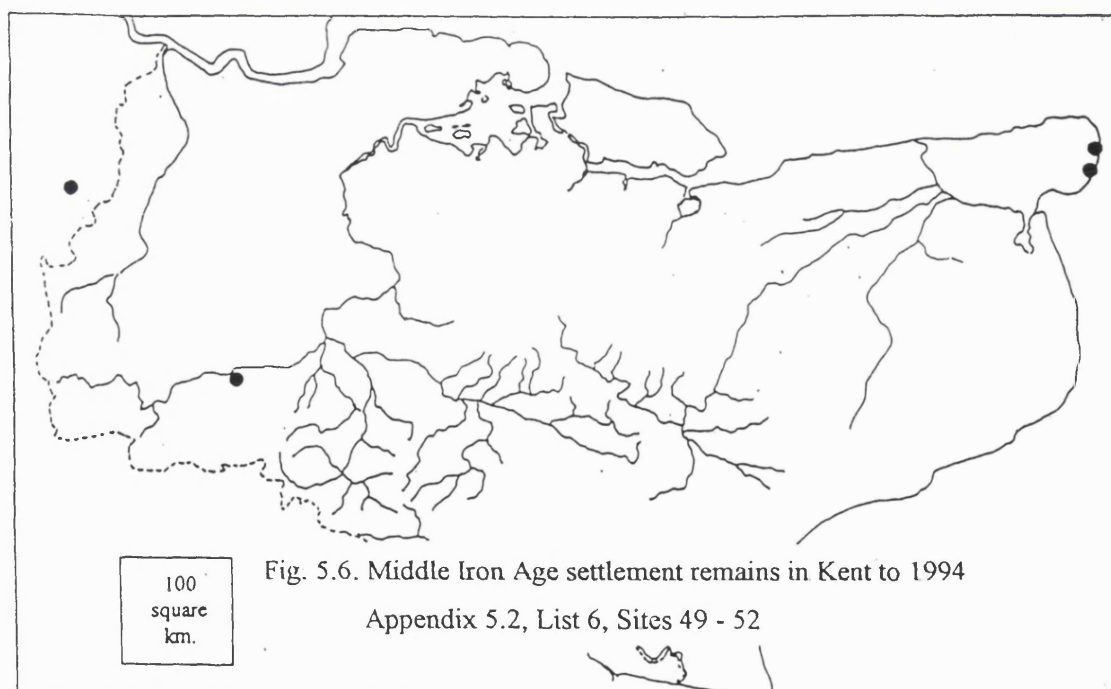
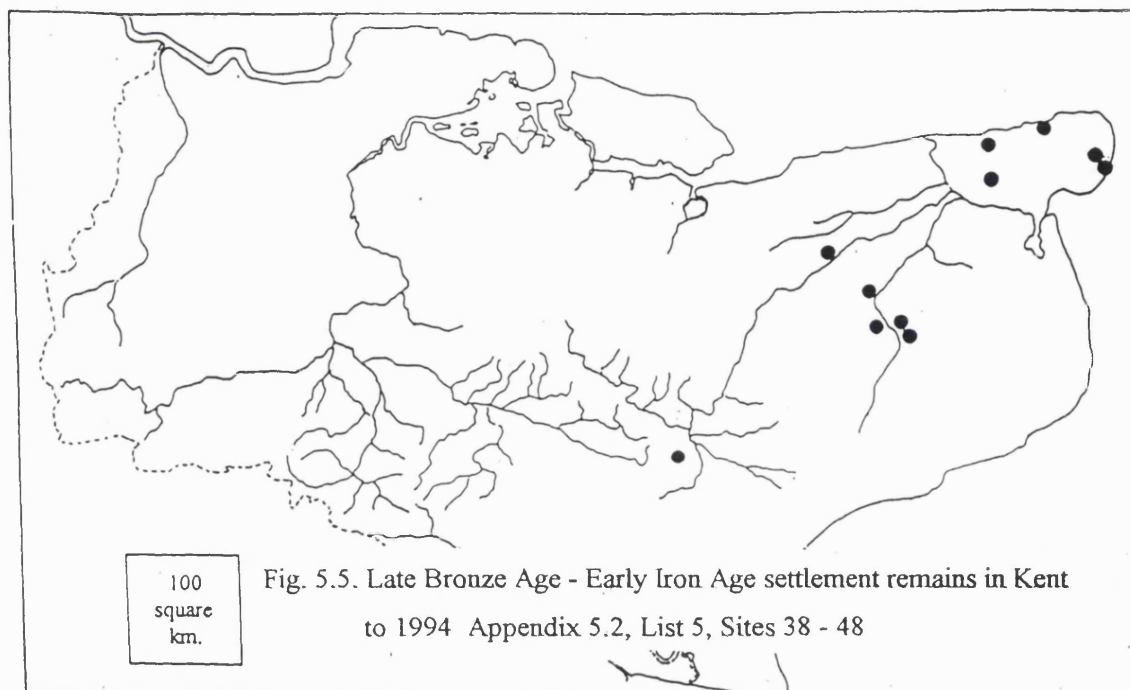
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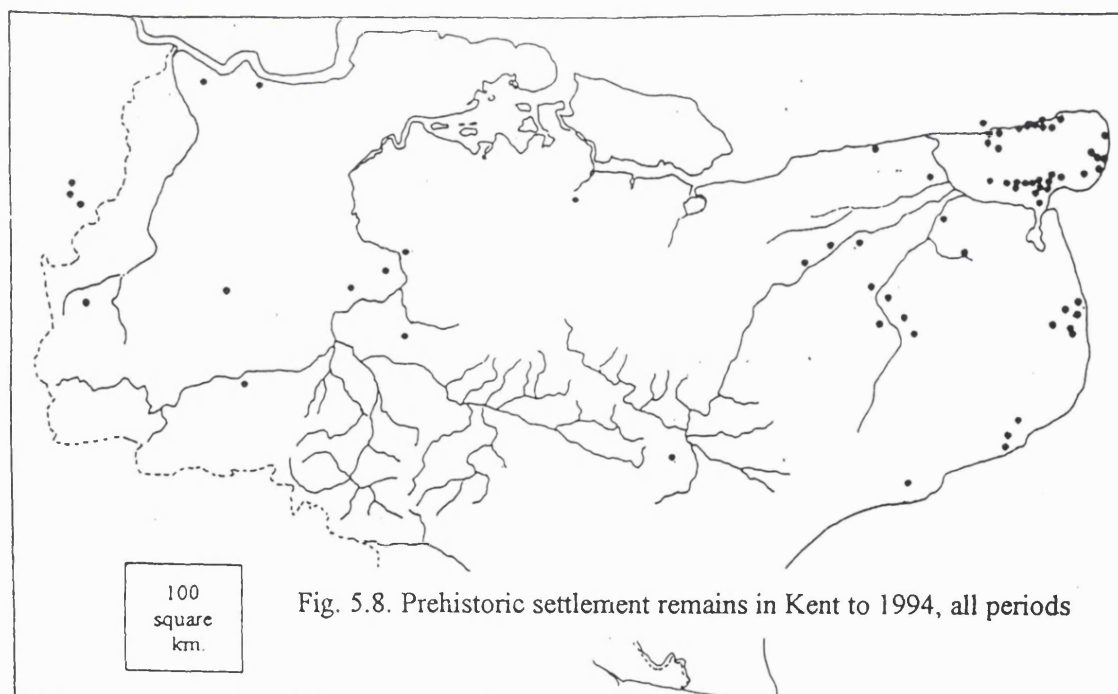
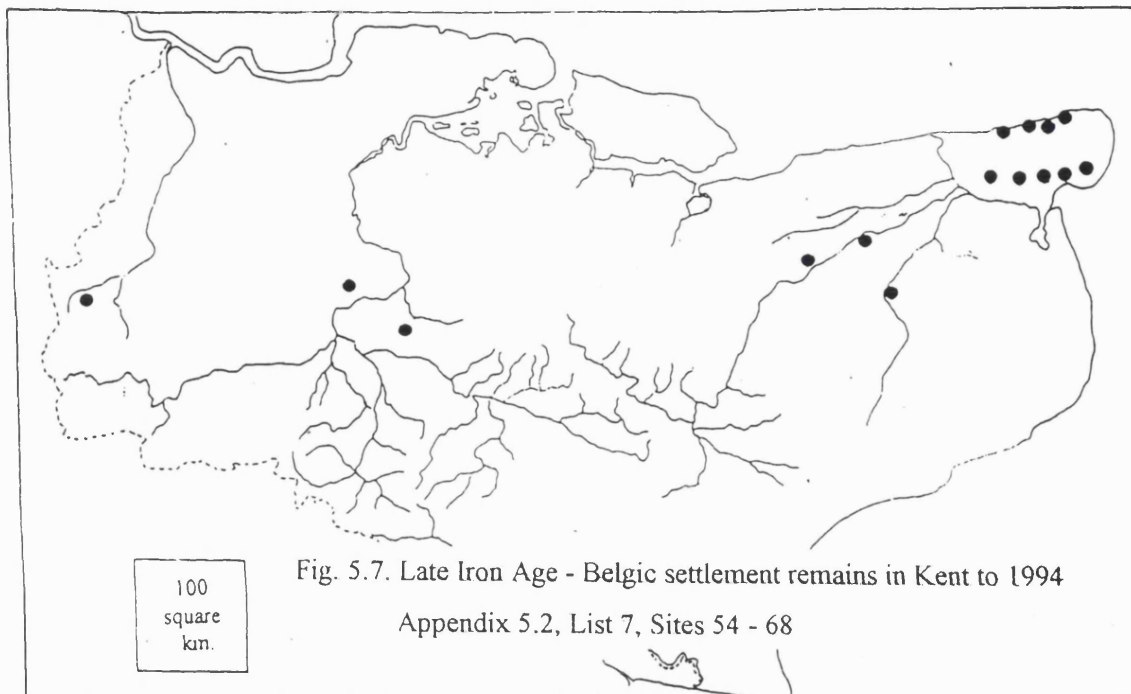
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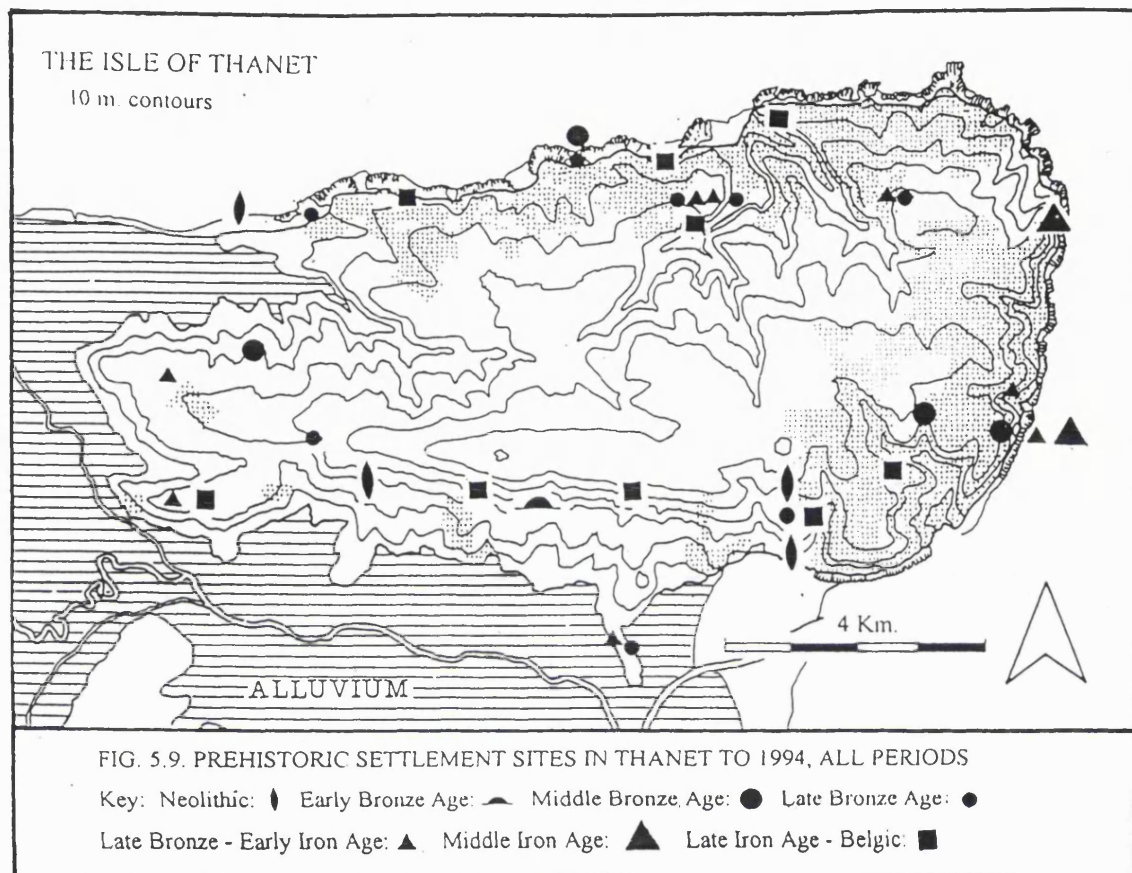
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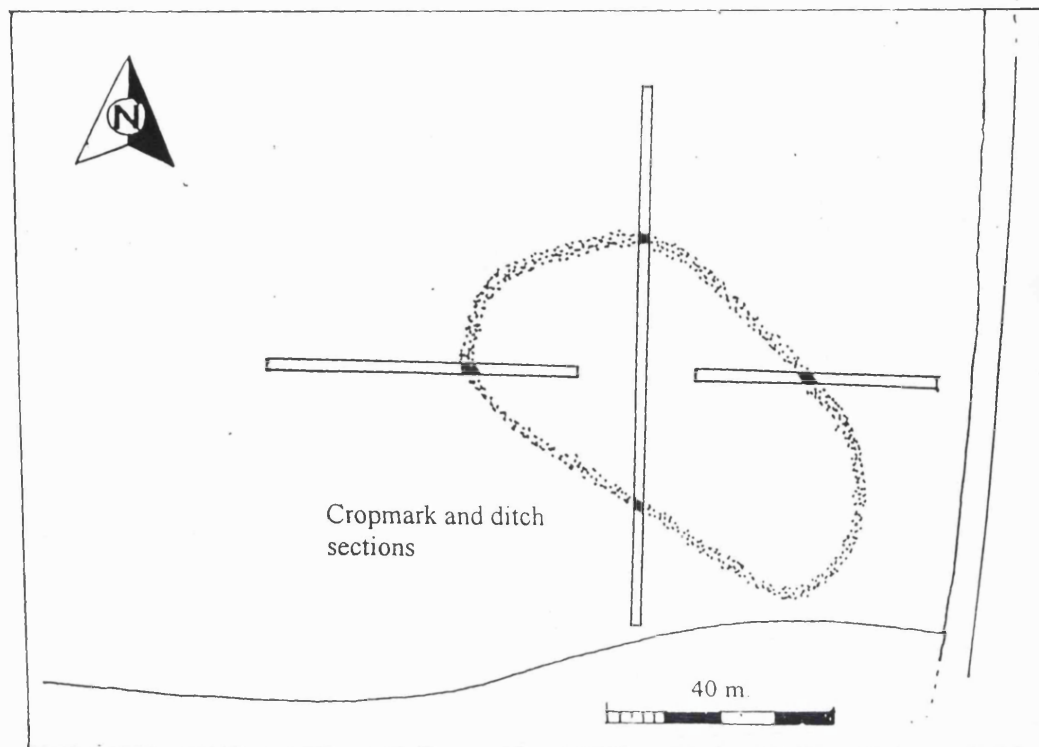


Fig. 5.10: Early Bronze Age enclosure at Laundry Hill, Minster in Thanet.

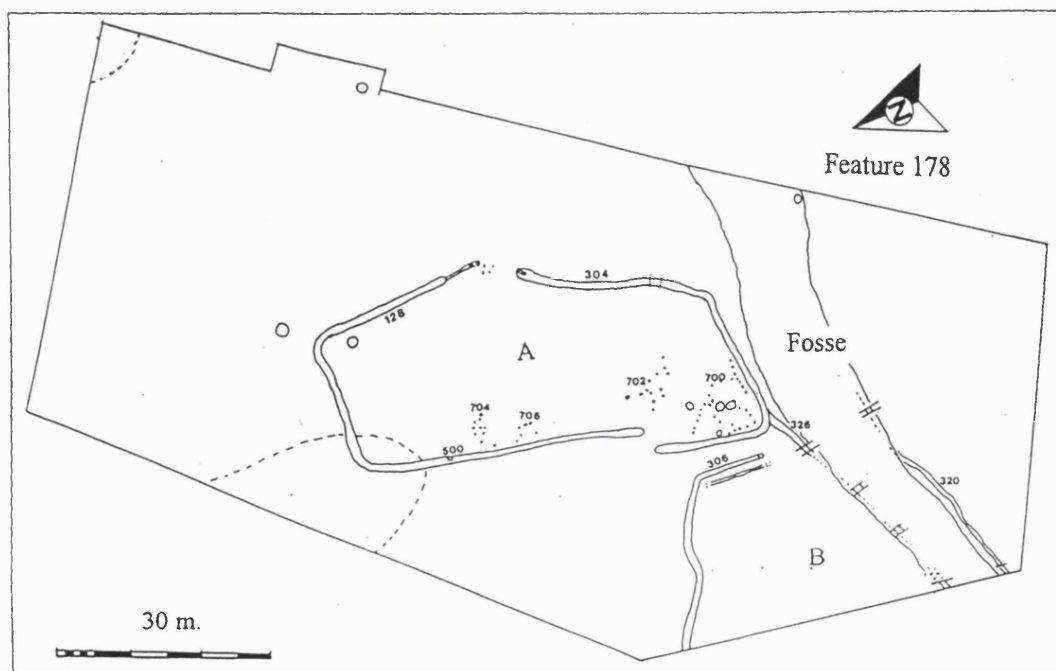


Fig. 5.11: Middle Bronze Age enclosures A and B at South Dumpton Down, Broadstairs

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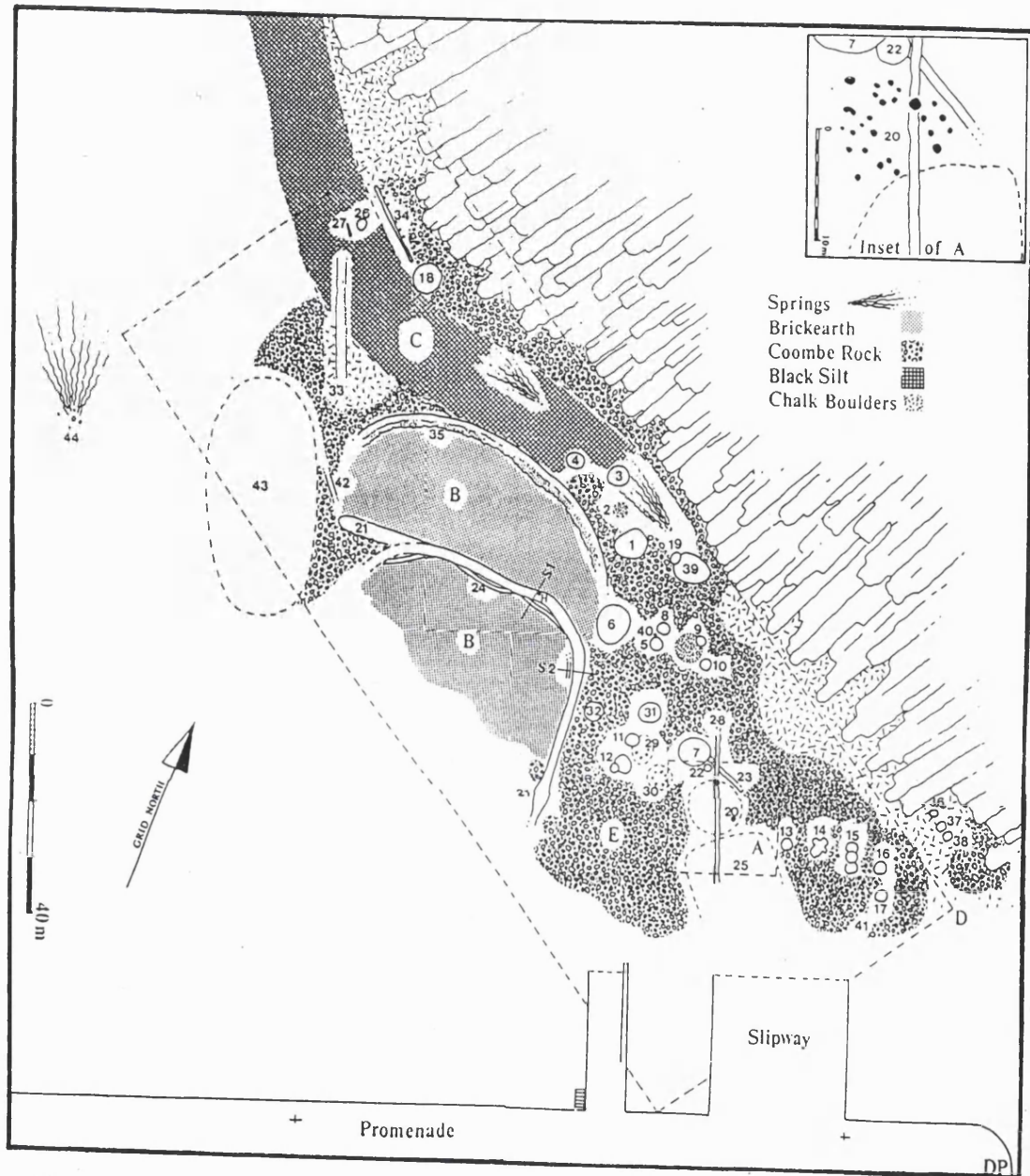


Fig. 5.12: Prehistoric settlement remains at St. Mildred's Bay, Westgate-on-Sea.

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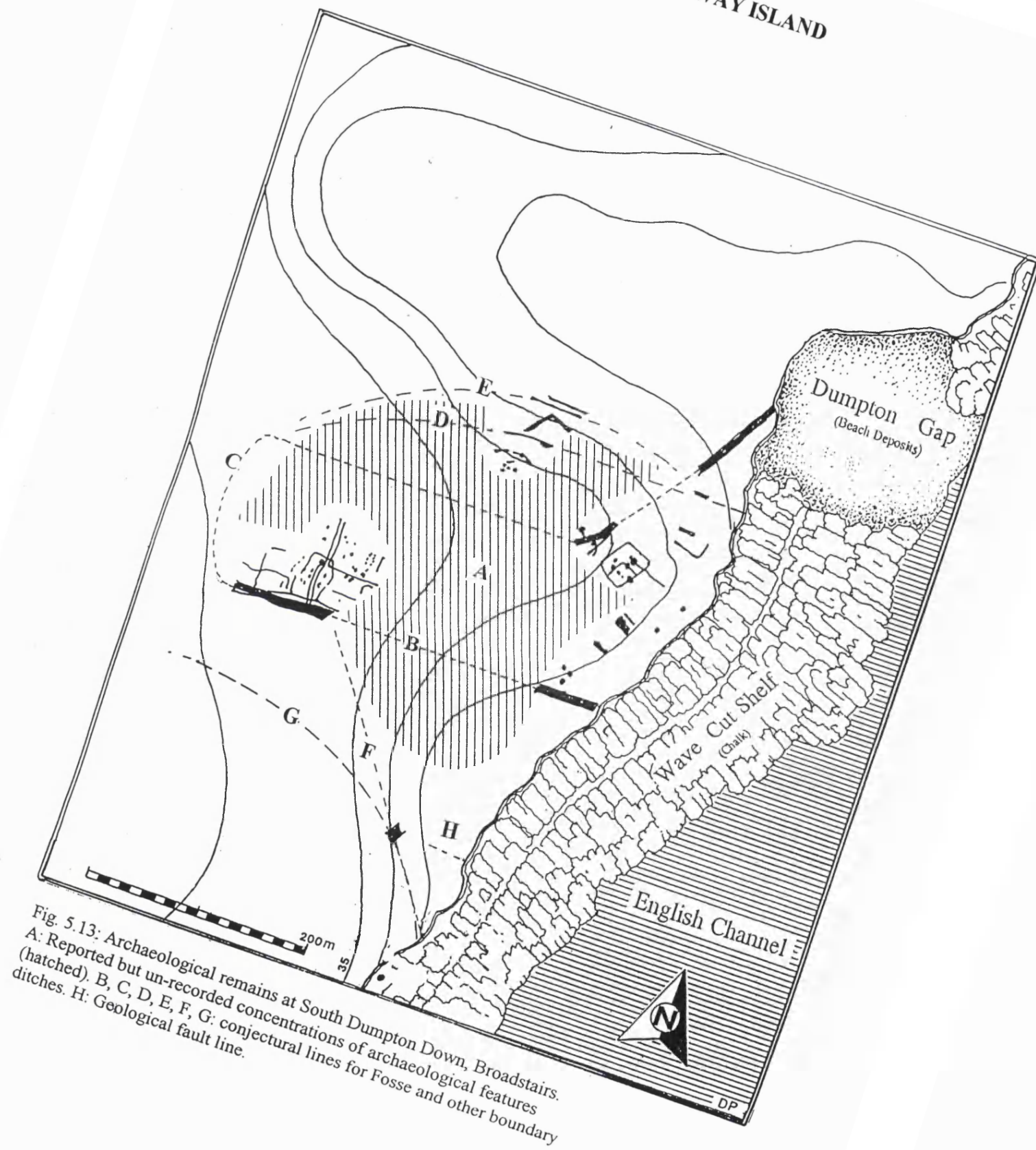


Fig. 5.13: Archaeological remains at South Dumpton Down, Broadstairs.
 A: Reported but un-recorded concentrations of archaeological features (hatched). B, C, D, E, F, G: conjectural lines for Fosse and other boundary ditches. H: Geological fault line.

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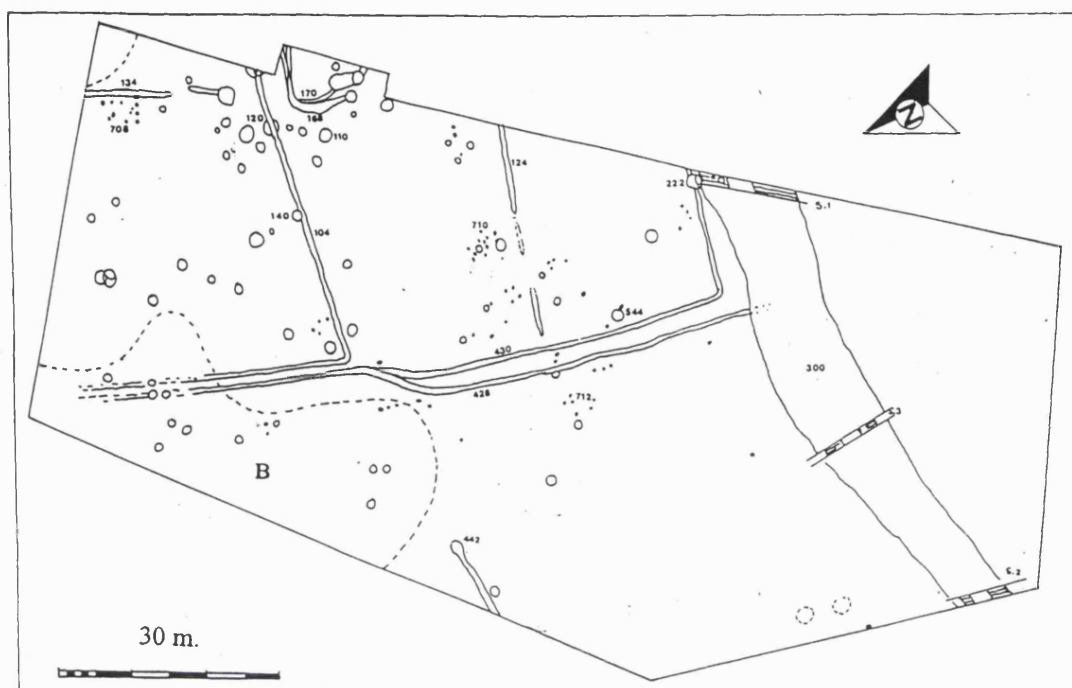


Fig. 5.14: Late Bronze-Early Iron Age palisaded enclosures at South Dumpton Down, Broadstairs.

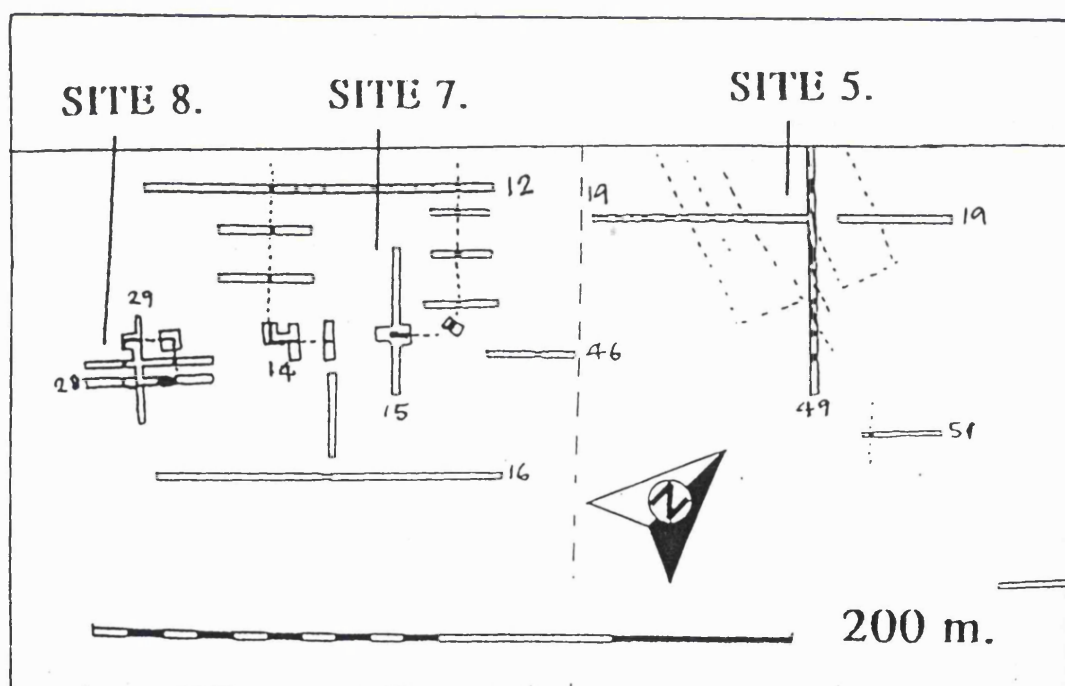


Fig. 5.15: Late Bronze-Early Iron Age settlement remains at Hartsdown, Margate, Enclosures A, B, and C.

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CHAPTER 6, THE DISTRIBUTION OF CELTIC COINAGE

6.1. Introduction and acknowledgements

This chapter deals with the recorded distribution of 'Celtic' coins and contemporary imported coin finds in Kent. Apart from find-spot provenance, the only data presented in the distribution plans is the estimated metallic composition, whether of bronze alloy or gold or silver alloys. The ratio of indigenous (British) coin finds to imports is given in Appendix 6.1 and dealt with in discussion (Section 6.5.). For the purposes of this study the whole era of Celtic coin manufacture and/or importation into Kent (very early Greek imports apart) has been considered to cover one hundred and seventy-five years. This period has been sub-divided into sections of fifty, sixty-five, and sixty years; not arbitrarily, but because each covers a discrete phase in both the evolution of coin design, and the political status of the 'Celtic' people of Kent.

A brief outline of the historical and political background to the groups of coins mentioned is given at the commencement of each section, more than this would be superfluous. The subject of Celtic coins in Britain, indigenous or imported, has been dealt with at length (Allen 1960, 1980, Mack 1975, Haselgrove 1987). Van Arsdell (1989) produced a thoroughly revised classificatory system that was described in the Foreword by Barry Cunliffe as:

"an essential research tool of incomparable value for everyone working in the field of Iron Age Studies"

The work did not stand for long unchallenged however. Haselgrove (1990) launched a fairly scathing criticism of the book. He did however accept that 'it will undoubtedly prove useful in providing archaeologists and collectors alike with a standard numbering system for referring to the myriad Iron Age coin types now found from Britain.' Haselgrove found Van Arsdell's conclusions to range between the controversial and the unacceptable. his main area of doubt and disagreement stemming from Van Arsdell's chronology based on weight loss and debasement.

The Thanet Archaeological Trust's involvement with Celtic coins is limited to their excavation, or receiving those that have been discovered by detectorists. The Trust then conveys them via a local expert to the Celtic Coins Register, Institute of Archaeology, Oxford. For the data used in this work the writer is indebted to Dr. Philip de Jersey of the Institute for making the Kent section of the Coins Register available and other help, and to Mr. David Holman for allowing access to his personal research notes and archive on recent coin finds in Kent.

For the purposes of this chapter the overall data has been divided chronologically by estimated date of coin into three separate distributions, each with a plan. The distribution dates

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are: c. 125 - 75 BC, (imported coins and the earliest British coinage); c. 75 - 10 BC (later imports and the first dynastic issues); c. 10 BC - AD 61 (the later Celtic coinage in Britain). Coin classifications and dates, and metal composition estimates are in the main based on Van Arsdell (1989) while noting the current reservations as to his work..

How representative are the distributions? How coloured by activities such as metal detector rallies, favoured sites for detecting, hoards etc.? Since metal detecting has occasioned an explosion in Celtic coin finds, these are important questions and they are addressed in discussion, Section 6.5.

6.2. Imported coins and the earliest British coinage, c. 125 - 75 BC

Apart from a very few Philip II imitations, some Armorican gold coins, and an increasing number of Greek coins (Holman 1998) the first appearance of coinage in Kent at about the end of the second century BC is that of staters and quarter staters of the Ambiani, a people associated with the valley of the Somme. The currently accepted interpretation of the historical context in which the earliest British coins appeared is as follows: Kent at that time was the canton of the Cantii or Cantiaci (Detsicas 1987) a developing 'Belgic' tribe split into four kingdoms. They enjoyed strong cross-Channel links.

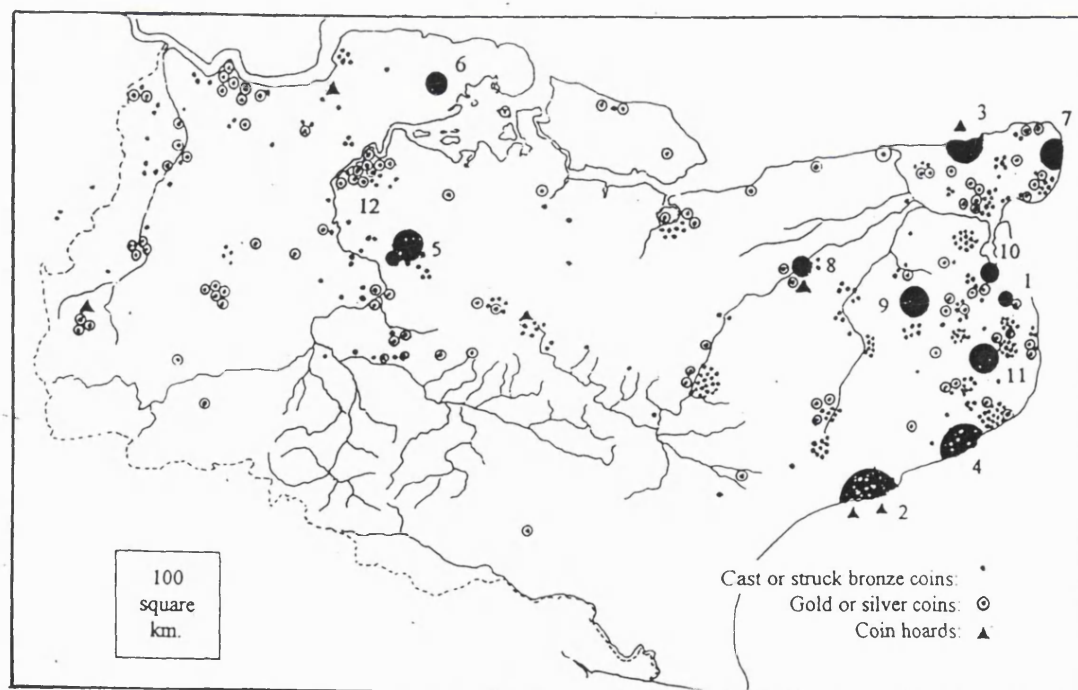


Fig. 6.1. The distribution of Celtic coin finds in Kent, dates 125 - 75 BC

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The greater historical background was that of the Roman invasion of Southern Gaul in 125 BC. Once established, the Romans found themselves operating a highly profitable trading station, its commercial routes extending north to Armorica and north-east to the Belgic part of Gaul and thence to Kent and the mouth of the Thames. Thus Kent and particularly north-east Kent continues to yield finds of coins from all over 'Celtic' Europe.

A Kentish tribal entity, the ?Cantii, would not be long in producing their own coinage and by about 100 BC they embarked on the production of low value bronze strip-cast coins, the 'potins.' Taking the cast coinage of the Masillia (occupying modern Marseilles) as a prototype, they attempted to depict a head of Apollo in the obverse and a charging bull on the reverse, both in very stylised form. At first the strip moulds were made using a master matrix or 'mother coin.' This practice soon gave way to what appears to be free-hand scribing of the image with a stylus. Because of their method of production the potins vary wildly in form and metallic composition¹. They do however follow a clear evolution in image design, and are classified in a sequence A - E in a date range c. 100 BC - 35 BC (Van Arsdell 1989).

Figure 6.1 shows the distribution of Celtic coin finds in Kent belonging to the period 125 - 75 BC. Since coin finds are heavily concentrated in some areas, super-imposition of the conventions used would not allow an accurate distribution picture. For this reason especially heavy, or gold/silver rich concentration have been numbered and/or blacked in the figure. They are:

1) Worth, near Sandwich, identified as a temple site in long use. Area heavily detected.	Gold or silver coins: 4	Bronze coins: 91
2) Folkestone. In addition two small hoards	Gold or silver coins: 79	Bronze coins: 80
3) Birchington, Thanet. In addition a hoard of 600+ coins found in 1853	Gold or silver coins: 4	Bronze coins: 68
4) Dover	Gold or silver coins: 3	Bronze coins: 59
5) Boxley	Gold or silver coins: 5	Bronze coins: 47
6) Stoke	Gold or silver coins: 10	Bronze coins: -
7) Broadstairs, Thanet.	Gold or silver coins: 2	Bronze coins: 39
8) Canterbury	Gold or silver coins: 3	Bronze coins: 24
9) Goodnestone	Gold or silver coins: -	Bronze coins: 33
10) Sandwich (area)	Gold or silver coins: -	Bronze coins: 27
11) Sutton (area)	Gold or silver coins: -	Bronze coins: 25
12) Rochester (area)	Gold or silver coins: 10	Bronze coins: 7

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Three hoards shown but not numbered in Fig. 6.1 are: Higham, 11 gold; Lenham Heath, cast bronze (many!); Westerham, 14 gold.

6.3. Imports, struck coins and the dynastic issues, c. 75 - 10 BC

The following interpretation is currently assumed to be the historical background of this era. Up to the close of the Gallic War Kent and the south-east area still received a variety of Gallo-Belgic gold and silver coinage. This trade ended with the War in about 50 BC. From then on, the 'Cantii' were thrown on their own resources and commenced production of struck coinage in gold and silver to complement a continued series of potins. Their neighbours the 'Atrebates' anticipated them in this by about twenty-five years, as did also the 'Trinovantes / Catuvellauni' tribal group. Coins from both these sources are found throughout Kent. Caesar's incursion in 55 BC seems to have greatly weakened the four kingdoms of Kent, making them vulnerable to conquest by the powerful kingdoms to the west and north of the Thames through the last quarter of the first century. Thereafter, dynastic issues of the Cantii are eclipsed by those of new rulers.

The plotted distribution for this period (Fig. 6.2), seems much more open and evenly spread. It is certainly much smaller, representing only 26% of the number from the previous period. Some notable concentrations can be seen however. As numbered in Fig. 6.2 they are:

1) Stoke	Gold or silver coins: 39	Bronze coins: -
2) Rochester	Gold or silver coins: 14	Bronze coins: 10
3) Canterbury	Gold or silver coins: 11	Bronze coins: 29
4) Worth	Gold or silver coins: 5	Bronze coins: 33
5) Folkestone	Gold or silver coins: 7	Bronze coins: 10
6) Dover	Gold or silver coins: 5	Bronze coins: 16
7) Goodnestone	Gold or silver coins: 1	Bronze coins: 29
8) Sandwich	Gold or silver coins: 2	Bronze coins: 17

No coin hoards from this period have been found in Kent.

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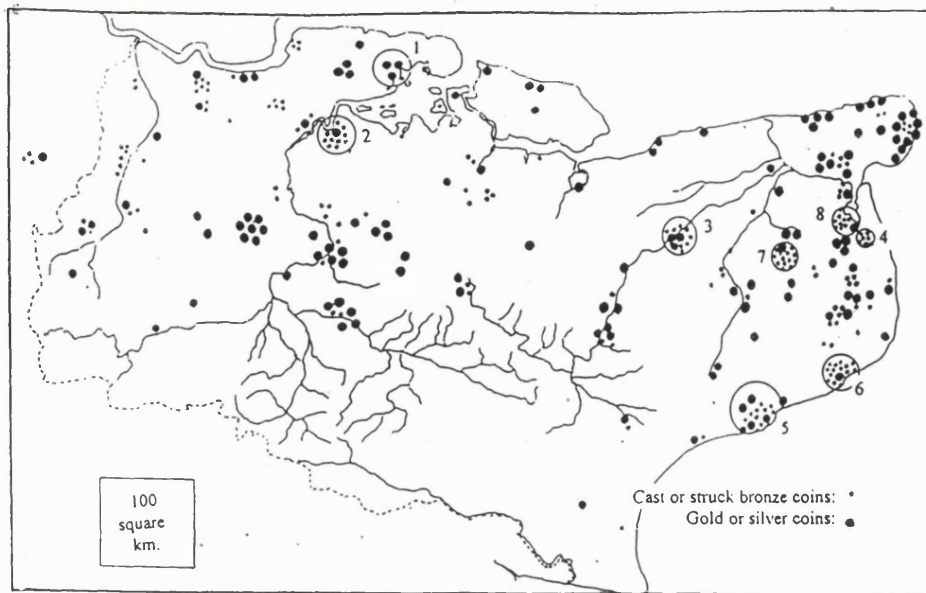


Fig. 6.2. The distribution of Celtic coin finds in Kent, dates 75 - 10 BC

6.4. The later Celtic coinage, c. 10 BC - AD 50

It is thought that at first this was a period of political confusion in Kent, the dynastic issues reflecting changes in the balance of power between the northern and southern dynasties. Order being restored early in the first century AD when Kent came to be ruled by Cunobelin, a Catuvellaunian king who enjoyed good relations with the Rome. His death in about AD 40 and the succession of his less tractable sons, Togodumnus and Caratacus triggered the Claudian invasion.

The distribution of coin finds for this period (Fig. 6.3), is much more attenuated than that of the first period, 125 - 75 BC, representing only 16% of the latter. There is also a drop in the number of finds from that of the middle period, 75 - 10 BC, down by 38 %. The geographic distribution of the coins is very similar to that of the previous periods, the same small sites and larger areas continuing to yield coins, although in much smaller numbers. Five concentrations of finds are worth special mention. As numbered in Fig. 6.3 they are:

1) Worth	Gold or silver coins: 5	Bronze coins: 17
2) Broadstairs	Gold or silver coins: 4	Bronze coins: 8
3) Stoke	Gold or silver coins: 7	Bronze coins: -
4) Goodnestone	Gold or silver coins: 1	Bronze coins: 11
5) Canterbury	Gold or silver coins: 1	Bronze coins: 11
6) Tunstall. A small hoard including an Aureus of Claudius with two Trinovantian	Gold or silver coins: 3	Bronze coins: -

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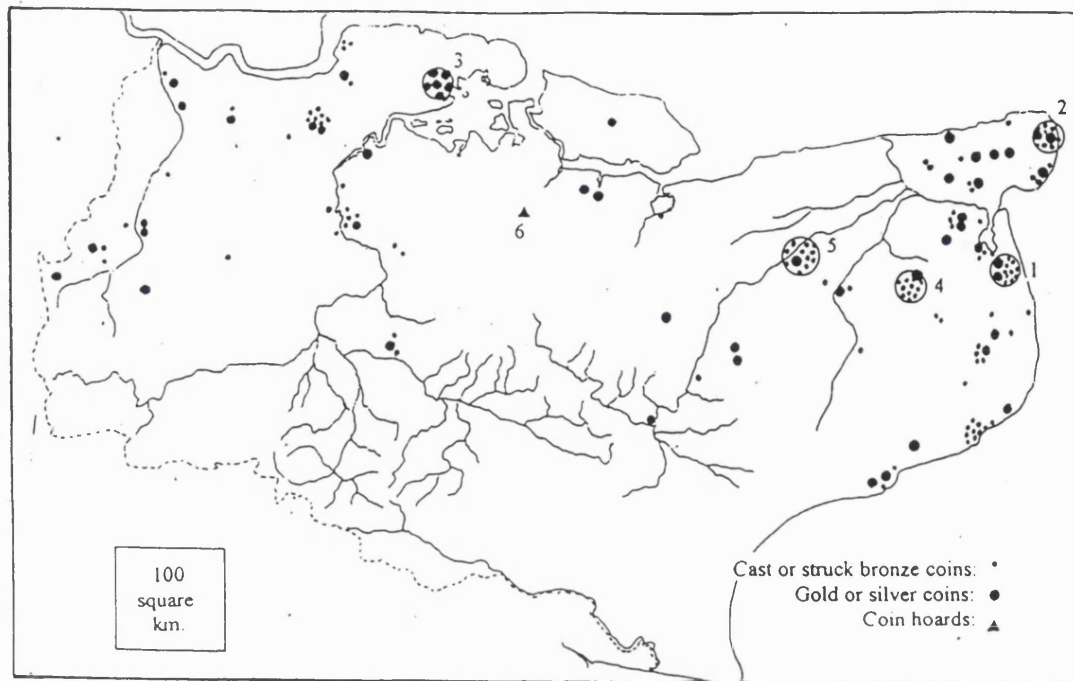


Fig. 6.3. The distribution of Celtic coin finds in Kent, dates 10 BC - AD 50

6.5. Discussion

A general trend throughout the one hundred and seventy five years of this study is that the numbers of coins in circulation, as represented by finds, diminishes dramatically with the passage of time. From the period 125 - 75 BC, for which 1732 coins have been found, the number drops to about a quarter of that for the next sixty-five years, and is more or less halved again in the last fifty years.

Two explanatory factors may be considered, firstly the cessation of cast bronze coin manufacture from about halfway through the second period. The last of the 'potin' series, the 'Late Dump Type' being attributed a date of around 40 - 35 BC (Van Arsdell 1989, 139-41). A second factor may well have been the political and social upheaval that appears to have followed Caesar's invasion in 55 BC, an event which seems to have had dire consequences for the four kingdoms of the Cantii. This however, does not explain a further drop in finds numbers during the thirty year reign of Cunobelin. What may be reflected in the diminishing rate of coin finds with time, is a progressive general impoverishment of the south-east, particularly eastern Kent when compared with central southern Britain, caused by the ascendancy of Hengistbury Head as

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a entrepot. In Kent this may have been further acerbated by tribal opposition to Caesar's invasion resulting in the tribes being excluded from favourable economic treaties (Cunliffe 1982, 47).

The distribution plans of coin finds for each of the three chronological sections, Figs. 6.1 - 6.3, show the geographical distribution, but because of superimposition, do not well demonstrate the numerical distribution. For this bar-charts Figs. 6.4 - 6.6 have been employed for each of the three period/sections discussed below.

Period 1, 125 - 75 BC

The geographical distribution of coin finds for this period as shown in Fig. 6.1 sets the pattern for the following two periods; dense concentrations and heavy scatters throughout Thanet and the Sutton Wedge area; elsewhere scatters and a few concentrations in the major river valleys. Because of super-imposition, it gives little idea of the distribution in numerical terms. This information is given graphically by a bar-chart below, Fig. 6.4. As can be seen, the greatest number of finds for this period are located in the Isle of Thanet, although the Thanet distribution is proportionately rather low in imported coins compared with the Sutton Wedge and all Kent distributions. A major factor in the Thanet distribution being the Birchington Hoard, containing over six hundred coins

A near second to Thanet is the Sutton Wedge Area, with the coins from the Worth temple site and its confines forming a significant contribution (16%). Apart from Worth, and two concentrations

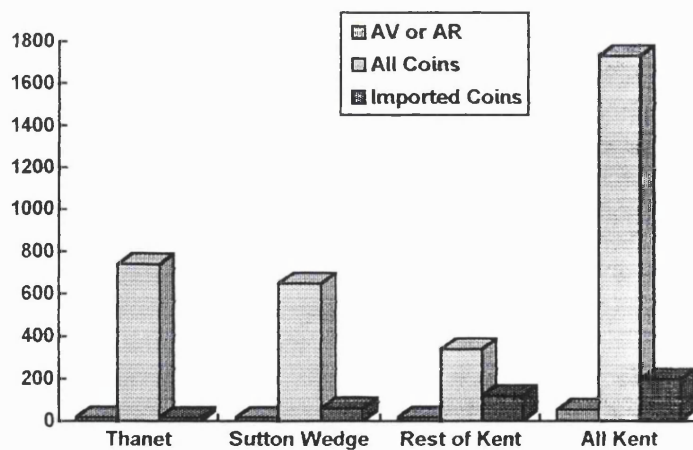


Fig. 6.4. The numerical distribution of Celtic coin finds in Kent for the period 125 - 75 BC

where the river valleys at Dover and Folkestone cut the coastal cliff-line, the Sutton Wedge finds are distributed in loose clusters across the downland plateau, with heavy concentration at Goodnestone and Sutton suggestive of major settlements. Finds from the whole

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of the rest of Kent constitute only 19% of the total for this period, and are chiefly distributed in the major river valleys.

Period 2, 75 - 10 BC

Numerically, this period is a complete reversal from that preceding it. As shown in Fig. 6.5, Thanet now provides only 9% of the total, with no significant concentrations, although over half the Thanet coins are gold/silver imports.

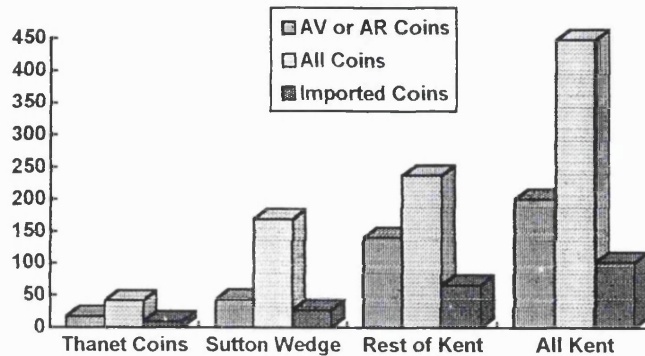


Fig. 6.5. The numerical distribution of Celtic coin finds in Kent for the period 75 - 10 BC

The Sutton Wedge area is well represented at about 38% of the County total, including six heavy concentrations, the Worth temple site among them. A comparison between Figs. 6.1 and 6.2 shows that the finds from the rest of Kent representing 53% of the total are now seen to be spreading out from the river valleys onto the higher ground, although there are concentrations of finds on the Medway at Rochester, on the Stour at Canterbury, and on the coast in the mouth of the Medway.

Period 3, 10 BC - AD 50

This period is represented by only 280 coin finds. The numerical distribution as shown in Fig. 6.6 below is: Sutton Wedge area 52%, Rest of Kent 34%, Thanet 14%. Geographically, the find spots seem either to be drawing back into the river valleys, or superimposed on some concentration sites from earlier periods. A reasonable interpretation of this picture is as that of a rather isolated barter economy, with the coin finds indicating a few coastal or riverain trading foci. The resurgence of the Sutton Wedge area and its dominance of the numerical distribution is much due to finds from the Worth temple site area, the Goodnestone concentration, and the development of a proto urban site at Canterbury.

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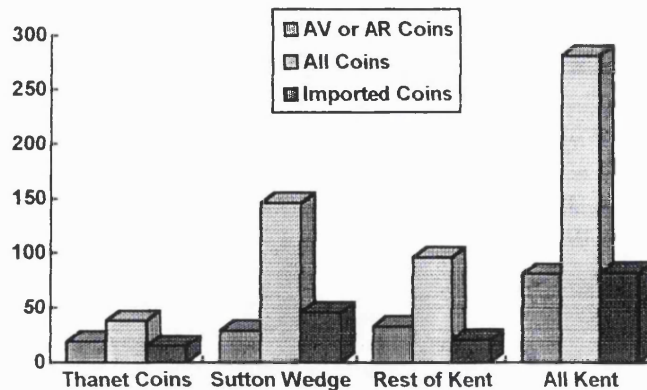


Fig. 6.6. The numerical distribution of Celtic coin finds in Kent for the period 10 BC - AD 50

The question of bias in the finds distributions

The majority of Celtic coins are metal detector finds, appearing during the last decade. In the last five years their occurrence in two areas, the Sutton Wedge and Thanet, has been closely monitored by David Holman, whose comments on the question of bias are here quoted:

"They [the coins] are found across much of Kent with the exception of Romney Marsh and the Weald. Other "gaps" occur which are probably false, particularly in the area west of Canterbury (Dunkirk, Hernhill etc.); the soil in this area is not conducive to the survival rate of coins and I know nobody who detects there. Another factor concerns "friendly farmers", i.e. the land made available for searching".

In a note to the writer David Holman listed ten concentrations in his monitored area, setting out the circumstances appertaining in each. These in abridged form are:

- 1) Worth (Temple area) - 179 coins. Long known as a 'productive' area it has been subject to extensive organised detecting since 1980. Some coins were found during archaeological excavation and fieldwalking.
- 2) Worth (Worth Hill) - 15 coins. The site was found by detectorists and its nature is currently unknown. Heavily but sporadically detected (organised) over the last ten years.
- 3) Sandwich (Archers Low Farm) - 56 coins. The site was found by detectorists and was subject to organised detecting and archaeological activity in the period 1985 - 1990. Large percentages of imported coinage and pottery make this a strong candidate as a port.
- 4) Richborough - 23 coins. Only one of these was found by detection, the rest were by excavation or as chance finds over the last one hundred years.

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- 5) Ebbsfleet Farm (Thanet) - 38 coins. This site was heavily detected over several years, but not to the extent of Worth. [A farm foreman heavily detected the site in the period 1975 - 1982. Before he removed his collection from the area some items including Celtic coins were shown to the writer. It is said by the former landowner and farmworkers to have numbered over 800 coins and bronzes].
- 6) North Foreland Farm (Thanet) - 58 coins. Searched by a number of individual detectorists over many years.
- 7) Eastry - 47 coins. This site is detected at a low level of activity by two individuals who keep its location secret.
- 8) Goodnestone - 75 coins. A site discovered in 1994 by a single detectorist. Although prospected by one person, it has also yielded hundreds of Roman coins and some military fittings.
- 9) Folkestone (East Wear Bay) - 24 coins. The coins are a mixture of early non-detector and individual detectorist finds.
- 10) Canterbury (walled area) - 139 coins. All these were found during archaeological excavations.

David Holman additionally comments:

a) "A number of sites/areas in east Kent produce smaller quantities, for the most part, these are detected by two or three people only, so recovery rates are lower." b) "The large areas in east Kent searched during metal detector rallies have yielded few Celtic coins."

Accepting that the factors of un-searched areas and poor coin survival in some soils must to some extent (albeit randomly) bias the coin finds distribution, the above data is open to three interpretations. Firstly, that the coin recovery gives, proportionately, a roughly dependable picture of the pattern of settlement and trade in Celtic Kent. Or, secondly, that it reflects the distribution of Kent's population of metal detectorists. Or, in a subtle combination of both, that chance discoveries by members of detectorist clubs has led to the 'blitzing' of some sites, producing inordinate numbers of finds compared with sites/areas searched by a few individuals.

The first of these interpretations is supported by David Holman's last comment above. If the second and third possibilities have a basis, it could take many years for the evidence for them to emerge. There is also the uncertainty posed by coin hoards, their coin numbers having the effect of skewing the statistics for an area. How many await discovery? Faced with these imponderables the writer has been content with accepting the first interpretation at face value.

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A general summary

The first period distribution of coin finds examined in this chapter, 125 - 75 BC, is dominated by the Isle of Thanet, which, despite it being only 2.2% of the county area, has yielded 42% of finds. It is closely followed by the much larger Sutton Wedge area with 37% of finds, with the whole of the rest of Kent yielding only 20% of the total. This firmly demonstrates the economic importance of Thanet and the Wantsum west-shore communities during the period. Thereafter though, Thanet suffers a dramatic decline in finds, providing only 10% and 14% of finds for the next two periods. While in terms of county area these figures are quite respectable, Thanet has clearly undergone a great change in circumstance.

Chapter 9 of this study equates the demise of Thanet as a Gateway Community with the development of deep-hulled keeled sea-going vessels capable of sailing into the wind by 'tacking,' an innovation in maritime design that can be roughly dated to 100 BC. Such vessels, after making a quick controlled crossing of the English Channel would have no need of the Wantsum Channel with its fierce tides, shoals, and lack of sea-room. They would round the North Foreland and enter the Thames Estuary well off-shore, running up the river with tide and wind in the deep mid-stream channel. Thanet would remain an island for more than a thousand years, but as the coin finds graphically demonstrate, as a Gateway trading community, it had suddenly been left high and dry.

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CHAPTER 7. PREHISTORIC CERAMICS; THE DISTRIBUTION OF FINDS IMPORTS AND INDUSTRIES

7.1. Introduction

This chapter explores the ceramic evidence supporting the existence of a prehistoric cultural focus in east Kent, a Thanet 'Gateway Community'. Such evidence can take three forms: i) In showing as a concentration of finds in one area, demonstrating a focus of settlement. ii) Where plotted distributions of localised ceramic industries and fabrics have a clear 'epicentre'. iii) Where imported or far-traded ceramics, which constitute high prestige goods, are seen to be concentrated in a single area. Some of the ceramic material considered below belongs to the first half of the second millennium BC, and it is not suggested herein that this is evidence that a Gateway Community existed in Thanet at that time, only that basic ingredients for such a community, a well established marine link through the Wantsum Channel, and a concentration of population, were already in place.

In the following gazetteer of prehistoric ceramic finds in Kent a disparity is apparent between the quoted percentages of find spots from Thanet as against the rest of Kent, and the distribution plans. This is because at the scale at which the plans are drawn, many sites are necessarily superimposed although actually hundreds of metres apart.

7.2. The distribution of prehistoric pottery in Kent

The Early, Middle and Late Neolithic periods, c. 3500 - 2000 BC

Section 1 of Chapter 5 shows that the Neolithic period in Kent is under represented, either through the neglect of archaeologists, or because the remains really are thinly spread. Of nineteen sites, four (21%) are in Thanet, (Chapter 5, Fig. 5.1), but with such paucity of data at this time it would be unwise to draw any conclusions. Finds of pottery, mostly of single sherds, are rather more extensive, deriving from fifty locations (Fig. 7.1), of which twelve (24%) are in Thanet. Although slim evidence from which to draw conclusions, this distribution indicates settlement as being concentrated on the Thanet downland, the Deal and Folkestone coastal plains, and the river valleys of the Stour, Medway, and Thames.

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The Beaker Period, c. 2200 - 1700 BC

With a number of discoveries made in the last decade, the distribution of Beaker pottery in Kent has expanded enormously. Up to 1994, finds of sherds or complete vessels representing ninety beakers had been published in Kent, their find spots being for the most part scattered along downland escarpments overlooking Kent's major river valleys, but with thirty (30%) on the downland of Thanet. At that time this represented what seemed a highly significant concentration. A view that was reinforced when a further twenty-one Thanet Beakers were discovered during archaeological work in 1994, when a sample of landscape 40 m. wide and 2500 m. long was opened for examination during highway construction¹.

Since then however, the writer has been made aware of developments that dramatically alter the latter picture of Beaker distribution in Kent, so that the 'cut-off' year of 1994 adopted throughout this study would not give the genuine picture. The great change has been brought about by an informal programme of data gathering and interpretation by Dr. Alex Gibson and Nigel Macpherson-Grant, who have been examining material from the Eurotunnel route evaluations of 1987-9², and unpublished finds from elsewhere in the County, in particular from the Ashford area. As a result, the current total of Kentish Beakers is now six hundred and fifty-three. The new distribution must, however, be treated with caution, as it now consists of two elements: largely fortuitous discoveries of funerary deposits, and occupation debris finds derived from eighteen sites examined during large scale archaeological excavations. This dichotomy and its implications is dealt with below in discussion. The current (1996) total of Kent's beaker finds are listed in Appendix 7.1, and shown as a distribution in Fig. 7.2.

Post Beaker - Early to Middle Bronze Age, 2000 - 1500 BC

The distribution of food vessels, biconical and cordoned urns, and miniature vessel finds in Kent is rather sparse and scattered (Fig. 7.3), although groupings occur at Folkestone and in the Isle of Thanet. It consists of only twenty-six finds, of which eight (30%) are from Thanet. All finds are from round barrows or the close vicinity of such monuments. An urn from a barrow at Ringwould, Dover, (Woodruff 1872) was accompanied by both an 'accessory' and an 'incense' cup (Fig. 7.11.1 and 2), and three more examples of these rare vessels were found at Luddington and Tilmanstone (both now lost) and 'Lord of the Manor' Thanet (Fig. 7.11.3). A 'Pigmy Cup' in the form of miniature tripartite collared urn about 8 cm. high was found in the ?primary grave of a round barrow at North Foreland, Thanet (Longworth and Perkins 1980 and Fig. 7.11.4). The Kent assemblage of urns and associated forms is currently too small to allow any conclusions to be drawn as to distribution, although in very general terms it is similar to the distributions of Neolithic and beaker pottery.

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The Middle and Later Bronze Age, Deverel-Rimbury Period and after, c. 1400 - 800 BC

Currently the distribution of settlement sites of this period in Kent has an extreme Thanet bias, with four out of the five sites so far excavated/investigated being located in the Island. This situation is not however reflected in the ceramic distribution. Although Thanet is well represented, find spots of Later Bronze Age pottery are generally scattered over the North Downs, the north Kent and Folkestone coastal plains, and Stour valley (Fig. 7.4). There is a current (1996) total of fifty-eight finds, fourteen (24%) from Thanet. Most of the assemblage is coarseware, consisting of sherds from large barrel or bucket-urns in fabrics tempered with coarse flint grits (Fig. 7.11, 5). Finewares are represented by only four examples, the Quex Park Bronze Hoard pot (Fig. 7.11.6), the urn from King Edward Avenue, Broadstairs containing a cremation within a round barrow (Fig. 7.11.7), and two sherds, from Netherhale, Birchington, and Tilmanstone, near Eastry. Two vessels of interest are the urn containing Picardy Pins from St. Lawrence College, Ramsgate (Fig. 7.11. 8), and the Trevisker urn from Monkton Thanet (Fig. 7.3, Fig.7.11.9), and Section 7.3 below.

The Last Bronze - Early Iron Age Transition, c. 800 - 600 BC

Of nine sites of this period so far excavated or investigated in Kent, six are located in Thanet. Qualitatively, the Thanet sites are, with the exception of Highstead and Eddington Farm (Herne Bay) larger and more complex than those elsewhere in Kent. The ceramic distribution does not mirror this apparent bias in site distribution. Find spots yielding pottery of this period are scattered generally throughout north-east Kent at ninety-four find locations (Fig. 7.5). Of these, fifteen locations (16%) were in the Isle of Thanet.

Evaluation by the writer of a large settlement site at Monkton, Thanet, has proved useful in the study of Kent's Late Bronze Age ceramics (Perkins 1994). This single-phase short duration site yielded an extensive assemblage of pottery, a spectrum of forms and fabrics found in direct association with several bronze hoards and single bronzes of the Ewart Park phase with Carp's Tongue sword elements. One vessel from the Monkton assemblage is not indigenous and appears to be an import from the Thames Valley, see Section 7.3. Another very localised Thanet and Wantsum area distribution with links via the Pas de Calais to the low countries is that of a distinctive form of briquetage. For this period a distinctive long rectangular form of salt container is encountered at Chislet and in the inter-tidal zone settlement sites at Minnis Bay, Birchington, and St Mildred's Bays, Westgate. As a general type these are broadly similar to vessels of Iron Age date associated with salt production from the west coast of France (Tessier 1975).

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The Early Iron Age Ceramics including the 'Rusticated Tradition,' c. 600/550 - 350 BC

The ceramic distribution map for this period (Fig. 7.6) is confined to the distribution of Rusticated Ware finds. This tradition was identified and defined by N. Macpherson-Grant (Canterbury Archaeological Trust Annual Reports 14 and 15, 1988/89 and 1990/91). All find locations listed yielded rusticated sherds, or pottery components of the rusticated assemblage. A different ceramic tradition exists west of the Medway, currently the subject of research, so that a total Kentish quantification for the period is as yet unavailable. The distribution given herein shows sites in the valley of the Stour, and on the north-eastern and south-eastern coastal plains, with two find spots on the banks of the Medway. Thanet holds a concentration of find spots representing over 28% of the total, most of them settlement sites on the Island's ancient coastline.

Rustication (French: *Esclabousee*) is in this case the deliberate application of additional clay to leave a rough finish to the surfaces of storage jars and cooking pots, presumably to assist the handling of these vessels. The technique is quite different from the decorative finger-tip rustication applied to some Neolithic and beaker pottery. The rusticated vessels form part of an assemblage that also includes finewares, some in red finish (Haematite coated) and some with bichrome and polychrome decoration. A range of vessels typical of the 'Rusticated Assemblage' is shown in Fig. 7.12.

The Middle Iron Age 350 - 150 BC

This distribution, see Fig. 7.7, is comprised of just four find-sites, three in Thanet and one in the valley of the Stour. There is a similar absence in East Sussex (pers. comm. S. Hamilton). If taken at face value, this is, demographically, puzzling to say the least! Possible explanations for this phenomenon are offered below in discussion.

The Late Iron Age c. 150 - 30 BC

Of eighty-four find-sites for this period, twenty-one (24%) are in Thanet, with the rest rather more widely scattered than those of previous period distributions. While most sites are on the coastal plains or in the valley of the Stour, Fig. 7.8, about 14% of sites now appear to the west in the valleys of the Medway and Darent. A slightly increased tendency seems apparent for sites to be located more than ten kilometres from the coast or a major river.

The Belgic Period c. 30 BC - 75 AD

Coinciding with the introduction of wheel thrown ceramics the number of find-spots for this period dramatically increases in comparison with the distributions for all the foregoing periods. It consists of 375 sites, of which 65 (17%) are in the Isle of Thanet. Although the coastal plains and river valleys are still favoured, many more sites are now located more than ten

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kilometres from the coast or a major river, and find sites appear in the Weald for the first time. This distribution, Fig. 7.9, still favours east Kent however, with over 60% of sites situated east of a line drawn Herne Bay to Folkestone, and only 7% of sites west of the Medway.

7.3. The distribution of imported or far-traded prehistoric pottery in Kent

The most spectacular find of far-traded pottery to turn up in Kent must surely be that of a large (seven gallon capacity) Trevisker urn (Fig. 7.11.9), a vessel identified by thin sectioning as originating in northern Cornwall. This was found fragmented on the floor of a round barrow ditch during the Thanet road-works project described in Note 2, and it fell to the writer to record and lift the hundred or so sherds. A brief account of this discovery with discussion has been published (Macpherson-Grant 1995) and it will be further dealt with in a forthcoming publication in the Canterbury Archaeological Trust Occasional Paper series. Dr. Alex Gibson (pers. comm.) states that the origin has been confirmed by thin-sectioning which revealed gabbroic grit inclusions. A fragment from a similar but not thin sectioned vessel was found at Baston Manor, Hayes in 1966 (Philp 1973), and another Trevisker jar tempered with gabbroic grits was found at Hardelot, Pas-de-Calais (ApSimon and Greenfield 1972).

A large Late Bronze Age settlement site at Monkton, Isle of Thanet, was evaluated by the writer in 1992 (Perkins 1994). Perhaps the most valuable result of these excavations was the identification of a coarseware/fineware assemblage of transitional Late Bronze/Early Iron Age pottery from a single phase, short duration settlement. Amongst this assemblage were forms having similarities to the pottery of the Thames-side Late Bronze Age sites, Mucking, Essex, Runnymede-Petters, Surrey, and Carshalton, Surrey (N. Macpherson-Grant in Perkins 1994, 277-79). In particular, Nigel Macpherson-Grant had drawn attention to a sandy ware storage jar (Fig. 7.11.11), as a 'guest' at Monkton on the basis of style and inclusions, possibly originating in the Thames valley, although Folkestone area or the Blean Forest are other alternatives.

A round barrow at North Foreland, Broadstairs, was part excavated by the writer as a rescue operation in 1978. In addition to Bronze Age graves, one of which yielded the miniature tripartite collared urn mentioned above, there were several intrusive Early Iron Age burials. The fill of one such grave held sherds of a carinated vessel bearing incised decoration (Fig. 7.11, 10). According to Ian Longworth (pers. comm.), this was the closest the British Museum authorities had seen to that date to the Early Iron Age pottery of the Marne district of France.

Associated with the vessels of the Early Iron Age 'Rusticated Tradition' assemblage are examples of red finished fine ware bowls and jars bearing a decoration of zones and panels coated with haematite powder (Fig. 7.12, A and B). Plain red-finished bowls, copying metal

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prototypes, first appear in the Late Bronze / Early Iron Age transition, principally in Wessex, but also in other areas of southern England, including Kent. As far as Kent is concerned, rectilinear zoned or painted decoration only begins to appear in the Early Iron Age. As a component of the rusticated-style ceramic package it is a continental tradition (see Fig. 7.10 for the distribution of rusticated pottery in north-west Europe) and, though no definite imported vessels have been recorded, the direct importation of design tradition and decorative technology is self-evident. This type of pottery is the subject of current research in order to determine whether production was confined to a few regional specialist workshops or whether settlements were self-sufficient in the production of these quality finewares (Middleton 1995).

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7.4. Discussion

The Early, Mid, and Late Neolithic Pottery

The Fig. 7.1 distribution map for this period (to 1994) places 84% of find-sites in east Kent, 24% of these in Thanet. Two 'time of writing' (summer 1998) excavations in Thanet may serve to emphasise the Island's concentration of sites. The first of these, by Canterbury Archaeological Trust, was at Chalk Hill, Cliffsend, Ramsgate (unpublished) ahead of construction work on the Port Ramsgate bypass and tunnel. Here a Neolithic causewayed camp was encountered, together with flat-graves and a ditched field system.

At the same time, the writer conducted a small excavation at the 'Oaklands' residential development at Cottington Road, Cliffsend. The work entailed stripping an area of 20 x 20 m. at the edge of the development, approximately on the line of the Roman period shore. This revealed an angle of a rectilinear ditched enclosure. Where sectioned, the lower ditch fill held a sherd of Peterborough Ware, and the upper, beaker sherds and a barbed and tanged arrowhead.

The Chalk Hill excavation was the first large scale 'strip and search' operation to be carried out in Thanet on the chalk down-slope between the downland escarpment and the shore. 'Oaklands' was only the second opportunity for sampling Thanet's prehistoric shoreline, the first being at Ebbsfleet, see Appendix 5.2, List D, Site 33. That all three locations uncovered Neolithic remains is surely highly significant in terms of Neolithic population and settlement density within Thanet.

The Beaker pottery

This section is confined to considering the distribution of Beaker pottery in Kent, and makes no comment on the relative numbers of form/groups present, or their putative chronologies, which, since publication of the British Museum Dating Programme (Kinnes and Gibson *et al* 1991) must now be open to critical revision, since a number of forms seem now to be more or less contemporaneous.

As outlined in Section 7.2, the current Kent beaker corpus and distribution is subject to an extreme dichotomy with regard to provenance, with 74% of finds deriving from two archaeological operations, each of a nature thus far unique in Kent. These were:

The Lydden Valley field survey:

During the winter months of 1983-84, the Dover Archaeological Group carried out an extensive programme of field walking, trial trenching, and dike clearance observation over the 3000 acres

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(1214 hectares) of the Lydden Valley alluvial plain to the north of Deal (Halliwell and Parfitt 1985). Seventeen sites yielding prehistoric materials were identified, among them four areas each estimated at about 18 m. in diameter that yielded 31 Beaker sherds. At time of writing, these were undergoing examination by Dr. Alex Gibson, who in general thought them to be later forms (pers. comm. Keith Parfitt).

The Eurotunnel ground works at Folkestone:

The last 4 km. of the Channel Tunnel rail link was not aligned arbitrarily as the shortest route, but of necessity ran along upper rise of the Folkestone coastal plain at the foot of the North Downs escarpment. This route roughly followed the 80 m. contour, and coincided with the 'spring line.' Arguably, this band of fertile soil between the steep chalk hillside and the sandy coastal flood plain was the optimum location for prehistoric and later settlement (Bennett 1988). This, the largest privately funded civil engineering project ever to be undertaken in Europe, was appropriately presaged by an immense archaeological evaluation. In this, 30,000 square metres of trenches were cut, and at least another 10,000 square metres was stripped in areas of archaeological significance. Fifteen sites yielding Beaker sherds and settlement evidence were encountered, together with the ring ditches of three ploughed off round barrows. Beaker sherds thought to represent at least 482 individual vessels were obtained, constituting 70% of Kent's beaker corpus.

The question that arises from the above operations is, can a distribution that includes the Beaker data so obtained be in any way representative of an actual distribution? Would not archaeological evaluation or fieldwork on a similar scale elsewhere, say on the prehistoric shoreline of the Wantsum, be likely to produce similar quantities of Beaker finds? The relative densities of Beaker finds (single Beaker identified by one or more sherds) to area examined in the four settlement site contexts are:

Eurotunnel = 0.012 Beakers per square metre in 40,000 square metres examined.

Lydden Valley = 0.0076 Beakers per square metre in 4071 square metres examined.

Laundry Hill, Minster = 0.006 Beakers per square metre in 654 square metres examined.

Ebbsfleet, Minster = 0.0071 Beakers per square metre in 432 square metres examined.

From this it can be quickly seen that the ratio of finds per square metre at the Laundry Hill, Ebbsfleet, and Lydden sites is almost the same, although the area examined at Lydden was eight times larger than either Laundry Hill or Ebbsfleet. The Eurotunnel Evaluation ratio is about twice as great as that of the other three contexts, but may simply reflect the mechanism of recovery, that of a series of area excavations at locations where trenching had revealed beaker

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sherds, feature, and occupation materials. To put the figure in perspective, were the Laundry Hill enclosed settlement to be fully excavated, the enclosure ditch fill alone might be expected, from the evaluation ratio, to yield sherds representing 200 Beakers³.

At the current state of Early Bronze Age archaeology in Kent, two Beaker distributions may be considered. One a totality, including the Eurotunnel finds (Fig. 7.13) and another, recognising the bias imposed by an evaluation on a unique scale, and omits that data (Fig. 7.14). If the second choice is thought to be the more reasonable, then the distribution becomes chiefly that of burial sites. Thanet's share of beaker finds can then be seen as significantly large, bearing in mind the Island's minuscule portion (2.2%) of Kent's land area (Fig. 7.15). The distribution of Beaker settlement evidence in Kent according to elevation is shown in Fig. 7.16. Currently, the great proportion of this evidence has been obtained from on or about 80 m. OD. Here again, were the Eurotunnel sites omitted, the position would be reversed, with the recent alluvium and inter-tidal zone sites demonstrating a heavy settlement presence in coastal fenland and along the shores.

Post Beaker - Early to Middle Bronze Age

The sparse distribution of find sites for this period, Fig. 7.3, rather favours Thanet with 30% of the of the County total. All the finds are of urns, accessory vessels, or incense cups, and all from barrows. For Kent, the great question arising is, where are the settlements? To time of writing, no settlement site or domestic ceramic evidence from this period has been found in the County.

The Later Bronze Age, Deverel Rimbury Period

Thus far fifty-eight find sites for this period have been recorded in Kent, of which 75% are in east Kent, the Thanet Sites representing 31%. Visually, the Fig. 7.4 distribution shows no particular Thanet bias, but it must be remembered that four of the fourteen Thanet find-sites represent four out of the five identified and investigated settlement sites in Kent. Qualitatively, the Thanet ceramic finds are important, being in two cases containers of deposited bronzes, the Quex Hoard and the St. Lawrence College Picardy Pins, and in two cases, the Monkton Trevisker urn and the King Edward Avenue urn, were presumably 'high prestige' funerary deposits.

The post-Deverel Rimbury ceramic sequence

Before John Barrett produced his fundamental work on the subject (Barrett 1980) a confused picture presented itself as to the form sequences and chronology of the 'post-Deverel-Rimbury tradition,' with its plainware and decorated ware assemblages. Most of the sites listed in the following sections were undiscovered when Barrett summarised the evidence for 'Sussex and the South-East Coast' (Barrett 1980, 311). Several of these sites, such as the Monkton and South

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Dumpton enclosures with their complementary bronze hoards and ceramic assemblages, begin to establish fixed points within the local sequence, but still require radiocarbon dates.

The Late Bronze Age / Early Iron Age transition

Of nine identified and investigated settlements of this period, six (66%) are situated in Thanet. This bias is not reflected in the distribution of ceramic find-sites however (Fig. 7.5). From this it can be seen that 78% of sites are in east Kent, with 25% of sites in Thanet, although within east Kent the sites are rather generally distributed. Many of the find-sites are however just that, with no indication as to the size of the community from which the sherds derive. When seen however against the background of Thanet's huge concentration of bronze hoards and finds, see Chapter 4, Section 4.4, the Island's share of Kent's total of ceramic finds is significant. The sand tempered urn from the large Monkton settlement has no flint grits and its form is unlike that of 'local' local urns. If it can be identified by scientific means as an import from the Thames Valley, this will be further evidence for Thanet's direct participation as a trading link between the Continent and the southern British hinterland.

The Early Iron Age rusticated style

In Kent, this distinctive ceramic tradition is notably confined to east of the Medway, with the majority of rusticated pottery sites being located in Thanet, on the western shore of the Wantsum Channel, or in the valleys of the Stour and its tributaries. This grouping is so well defined as to cause Nigel Macpherson-Grant, who has made a special study of the pottery, to name it the 'Rusticated Province' in that ceramically at least the sites can be seen as an off-shoot of continental tradition. In north-west Europe the rusticated wares are heavily distributed in the northern Netherlands west of the Ems, with a smaller but still substantial cluster of sites in Belgium on the west bank of the Meuse. There is a more general scatter through north-western Germany between the Ems and Rhine, across Belgium, and into north-western France north of the Somme. This continental distribution of rusticated wares is given in Fig. 7.10. It is noticeable that the entire distribution is confined to land under 100 m. in elevation, and that about 78% of these sites are either on a major river, or are within 20 km. of such a river or the sea coast.

The level of equation between insular and continental ceramic assemblages is high and the recovery of imported products should be expected. A small fine ware group from Castle Hill, Folkestone, still requires petrological analysis, but it is noteworthy that they are in a purely grogged fabric, a productional tradition relatively common amongst Pas-de-Calais assemblages, but alien amongst contemporary flint tempered fine wares from Kent. These are either direct imports or first generation products (Rowlett et al 1969, Hurtrelle et al 1990).

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Evidence for salt production continues into this period with briquetage coming interestingly, not from inter-tidal sites, but immediate coastal hinterland locations. The data from sites such as Chislet and Highstead suggests that brine-rich residues were taken to the settlements for final reduction and crystallisation (pers. comm. N. Macpherson-Grant). Devolved and less well produced evaporating troughs are a feature of this period; small square sub-rectangular pots from Dumpton, South Dumpton and Hartsdown may be salt dispensers (pers. comm. N. Macpherson-Grant). There are implications here of salt being a commodity for trade or exchange.

The Middle Iron Age

This distribution, of only four find-sites, three in Thanet, has no validity as evidence of population or settlement distribution. At the moment there is no ready explanation. To quote Nigel Macpherson-Grant:

"With reference to the tiny number of Middle Iron Age sites, it is possible that some of the Late Iron Age sites producing everted rims belong in the Middle Iron Age block, but without diagnostic types of decoration etc., it is impossible to say, and therefore initially wiser to call them Late Iron Age. There may be something demographically significant here, or we may have got it wrong in some way (dating of style, longevity etc.), it is a problem that other ceramicists are aware of."

(Nigel Macpherson-Grant 1996).

The Late Iron Age

For this period Thanet can claim 24% of the County's ceramic find-sites, although as visually demonstrated by Fig. 7.8, the sites are becoming more widely spaced and more generally distributed. The existing evidence does however throw light on the relative importance of the Late Iron Age settlement phase at South Dumpton Down, Thanet (Chapter 5, and Appendix 5.2, List 3, No. 27). The site yielded remains of twenty large storage jars of a size and form only usually found in the ratio of one to two per site (pers. comm. N. Macpherson-Grant).

The 'Belgic' Period

The initial impact of this distribution (Fig. 7.9), when comparing it to those of preceding periods, lies in the huge, approximately ten-fold, increase in find sites. Since the data gathering mechanism for this period is the same as for those previous to it, this demographic phenomenon allows of three explanations, perhaps of co-existing validity.

- 1) A population explosion occurred in which immigration may have been a factor both numerically and as a 'trigger.'

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- 2) Technological advances allowing the spread of agriculture through woodland clearance and the ploughing of previously intractable soils. Thus what we are seeing is not so much the expansion of a population, but its diffusion from long established settlements to new tracts, some nearby, others in the deeply forested clays and gravels of the Weald. Although over 60% of find-sites are in east Kent, Thanet's share of 17% of sites does not appear significant in the general distribution.
- 3) That pottery was increasingly used in preference to wood or leather vessels, perhaps being produced more efficiently and cheaply.

Summary

The thesis of an Isle of Thanet Gateway Community as an abiding cultural focus in prehistoric Kent is not endorsed for all the periods considered in this Chapter. What does emerge however, is that Thanet, an insignificant fraction (2.2%) of Kent's land area, and separated from the mainland by a sea channel, never fails in any period to produce a significant share of the County find-sites. This share is unimpressive for two periods, the Beaker (7.8%) and the 'Belgic' (17%), but the mean for all nine periods is 27%, a figure that cannot but support the Thanet Gateway proposition. The falling off in find-site numbers during the Belgic period is in keeping with the diminishing importance of the Wantsum Channel due to improvements in ship design and the development of direct Rhine - Thames and Seine - Solent trade routes (Chapters 8 and 9).

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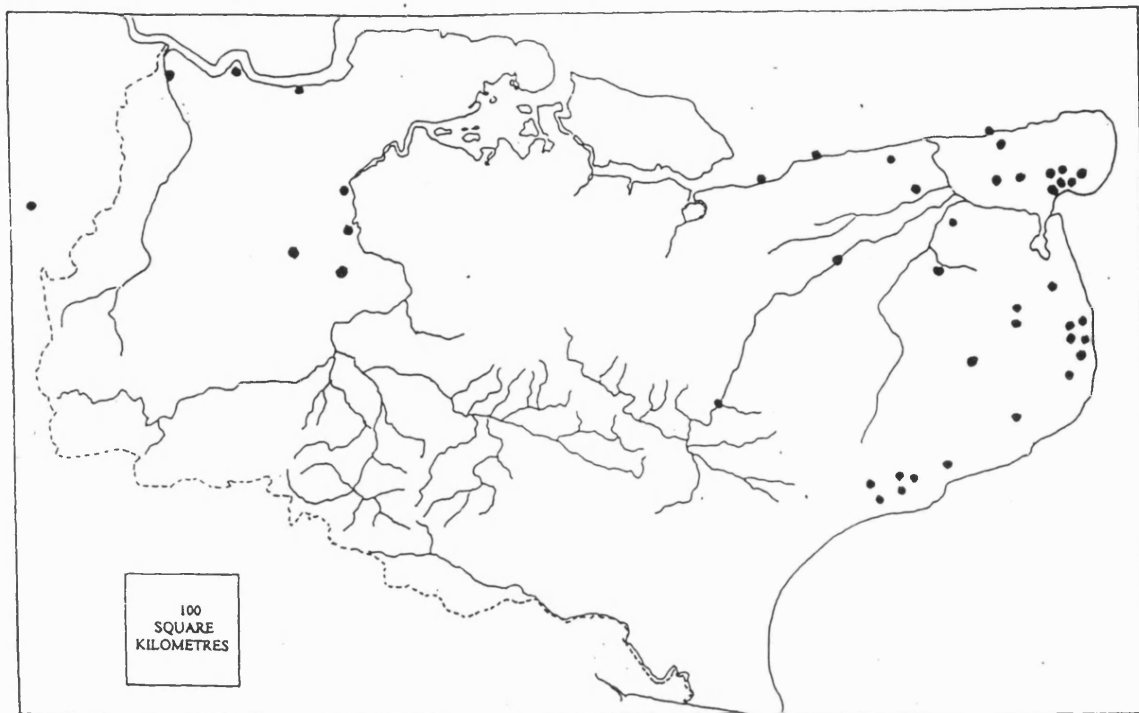


Fig. 7.1. The Early, Middle and Late Neolithic ceramic finds distribution in Kent
c. 3000 - 2000 BC

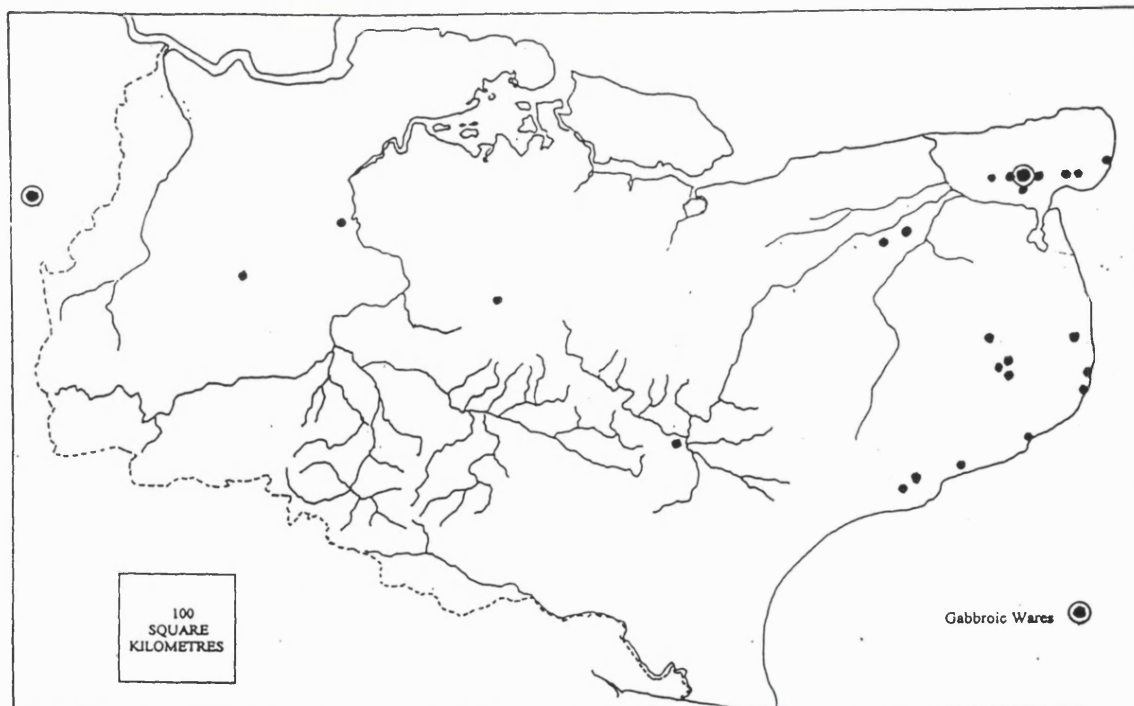


Fig. 7.3. The post Beaker Early - Middle Bronze Age ceramic finds distribution in Kent,
c. 2000 - 1400 BC

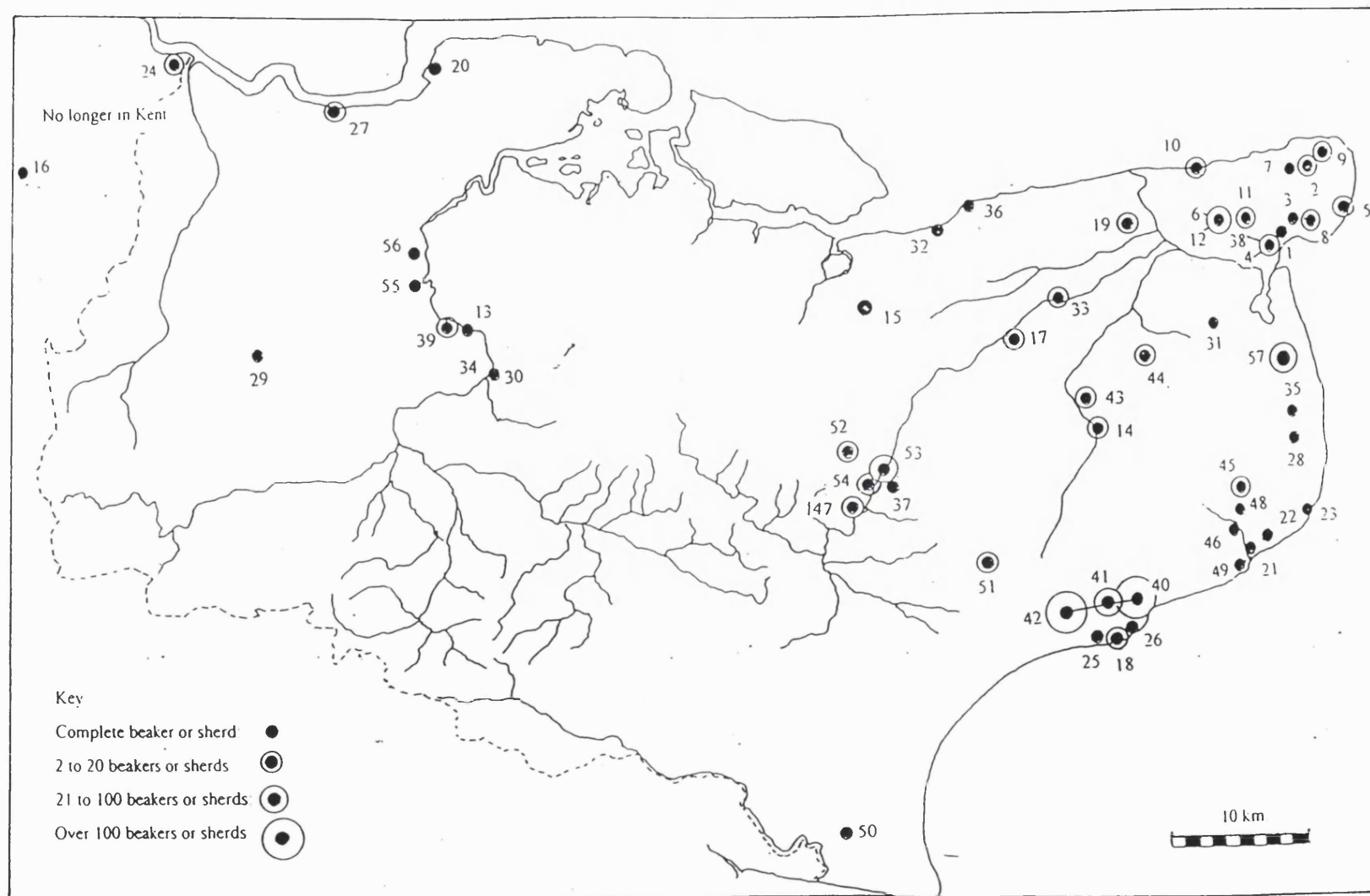


Fig. 7.2. The distribution of Beaker finds in Kent to 1996 as listed in Appendix 7.1

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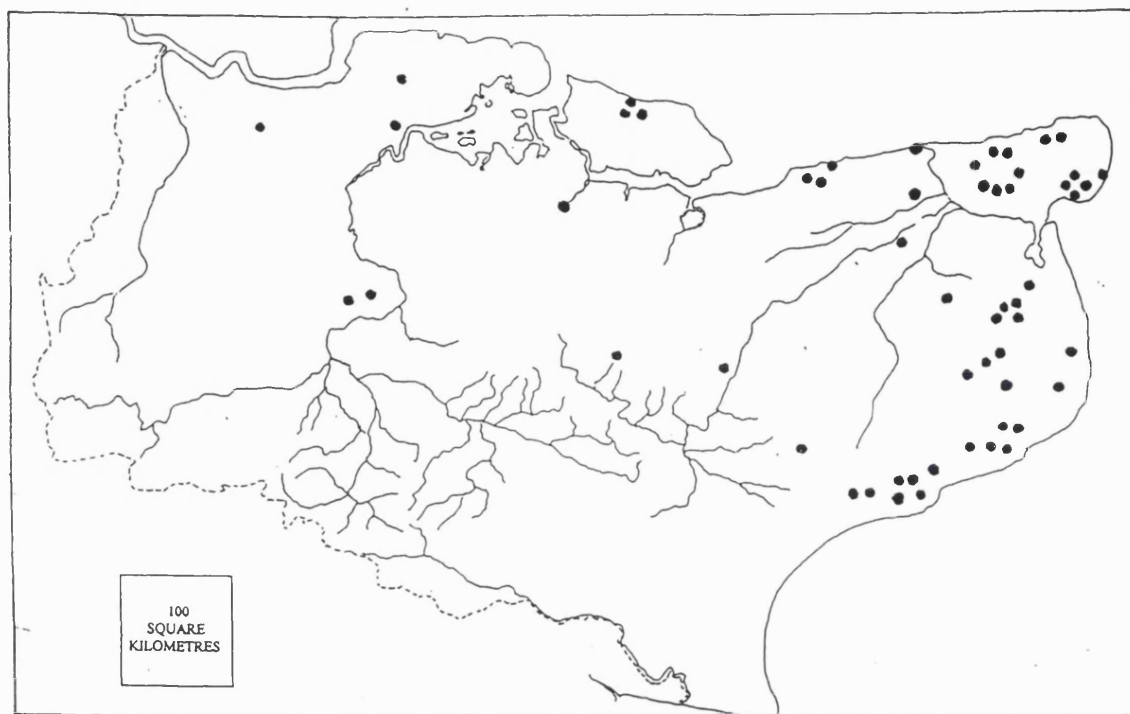


Fig. 7.4. The Late Bronze Age Deverel-Rimbury ceramic finds distribution in Kent, c. 1400 - 900 BC

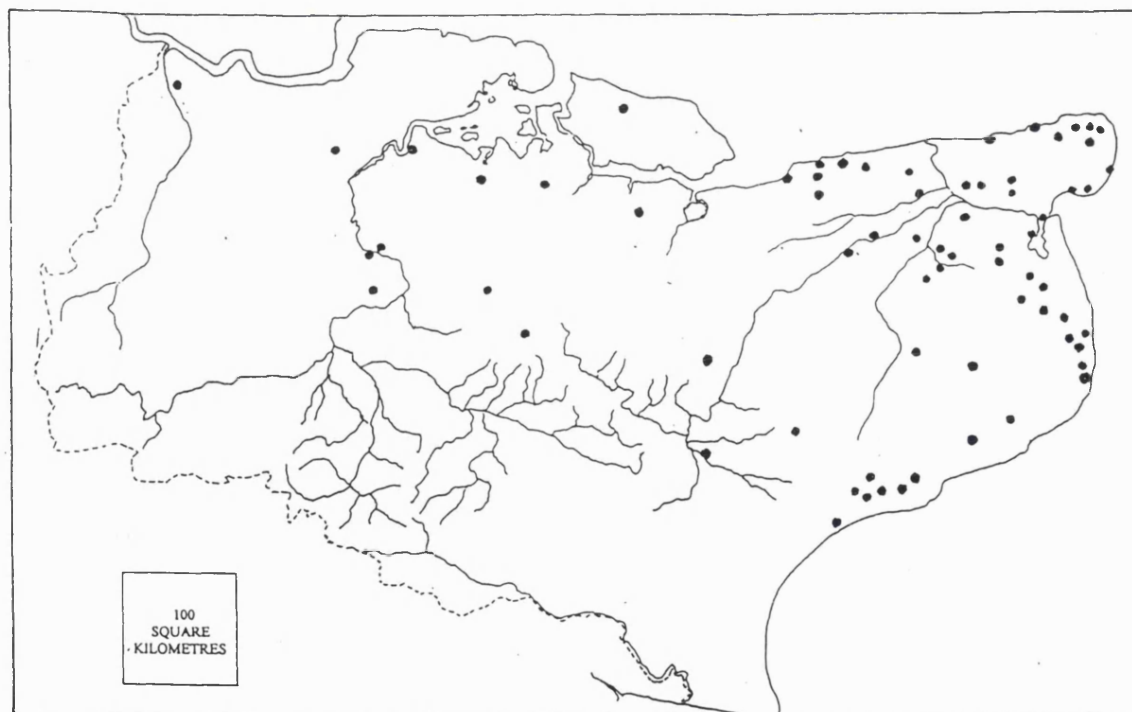


Fig. 7.5. The Late Bronze - Early Iron Age Transition Period ceramic finds distribution in Kent, c. 900 - 600 BC

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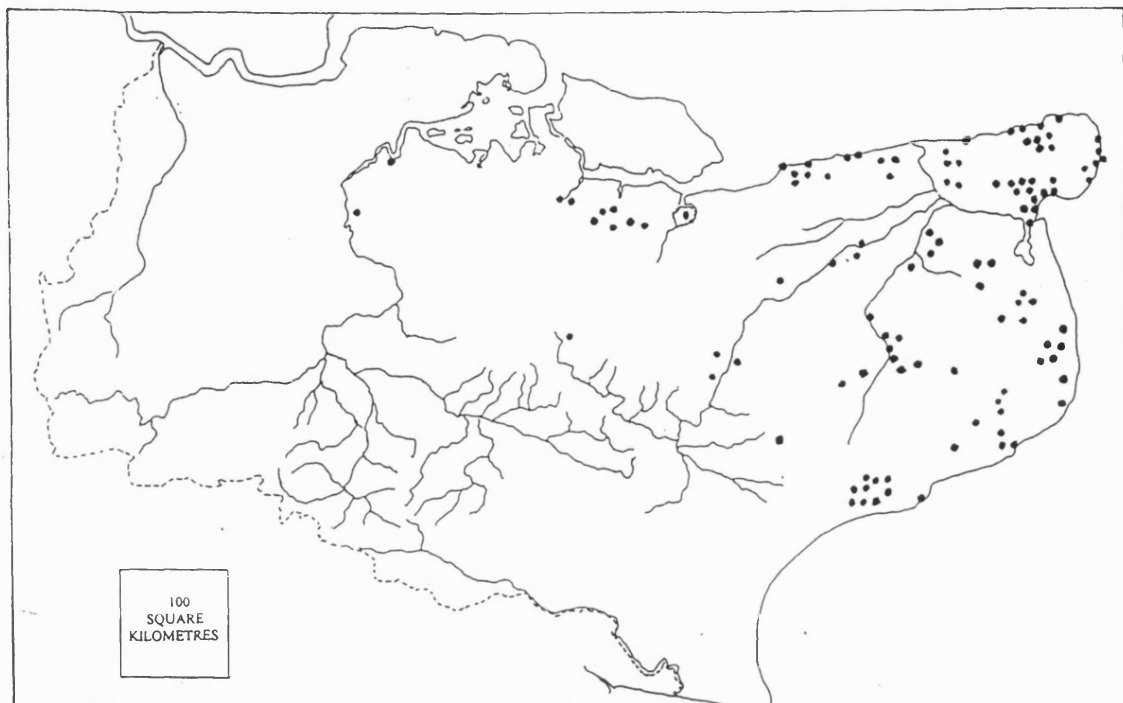


Fig. 7.6. The Early Iron Age 'Rusticated Tradition' ceramic finds distribution in Kent, c. 600/550 - 350 BC



Fig. 7.7. The Middle Iron Age ceramic finds distribution in Kent, c. 350 - 150 BC

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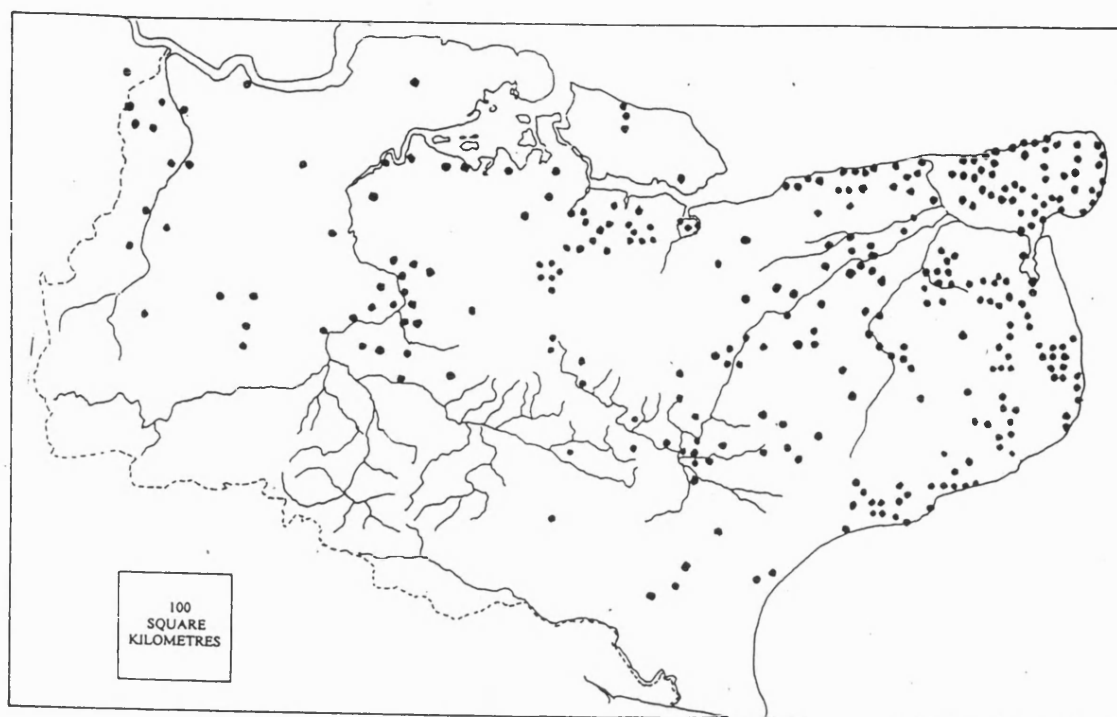


Fig. 7.8. The Late Iron Age ceramic finds distribution in Kent, c. 150 - 75 BC

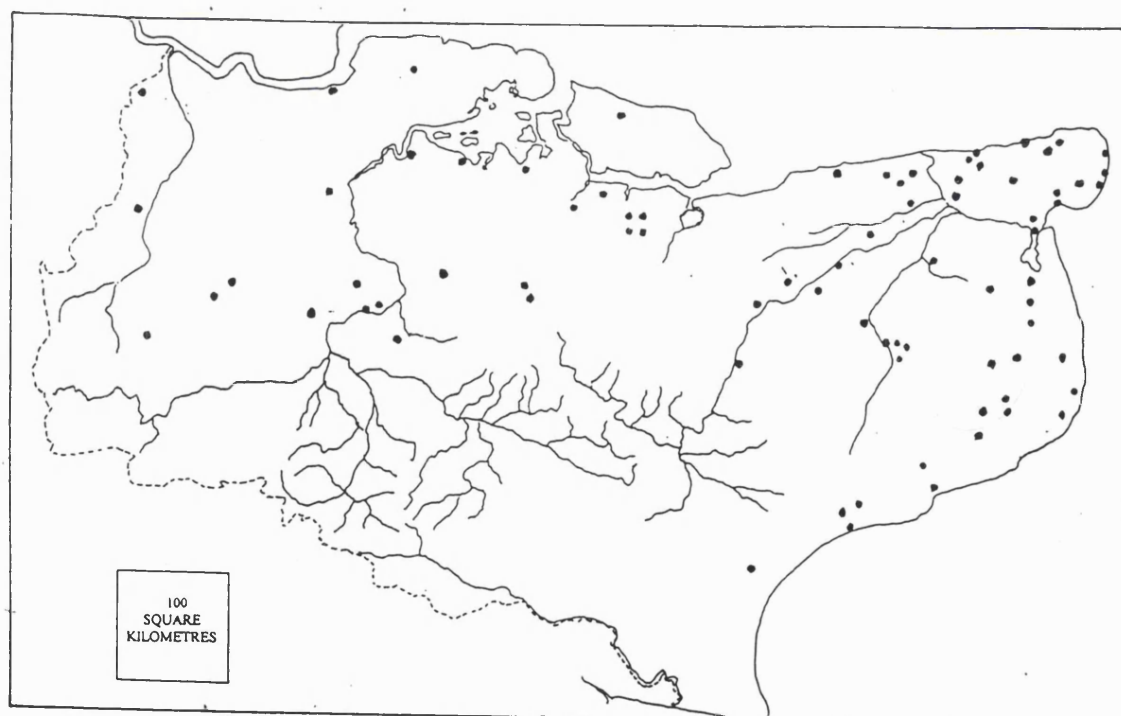


Fig. 7.9. The Belgic Period ceramic finds distribution in Kent, c. 75 BC - AD 75

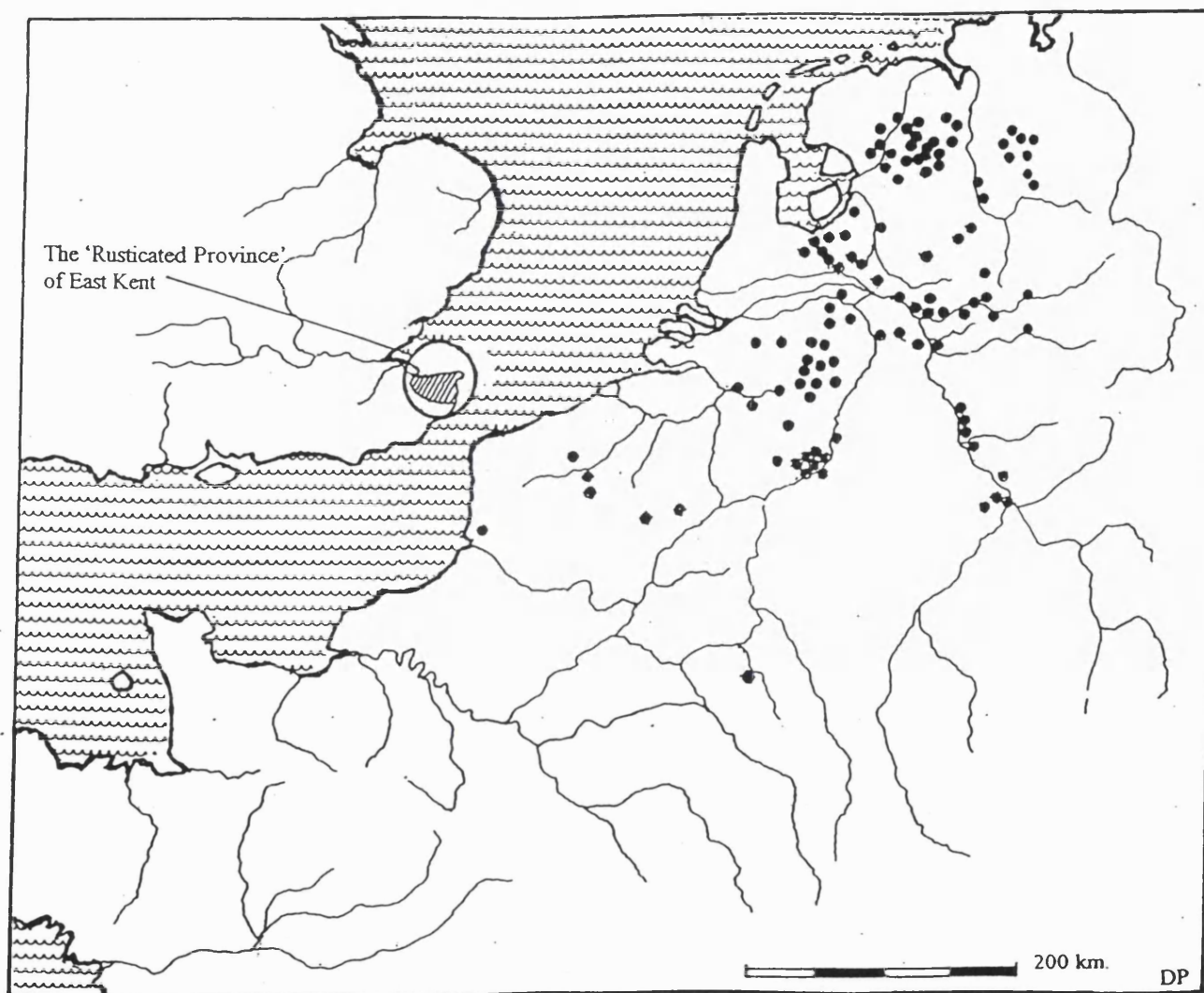


Fig. 7.10. The distribution of Rusticated Pottery Sites in North West Europe

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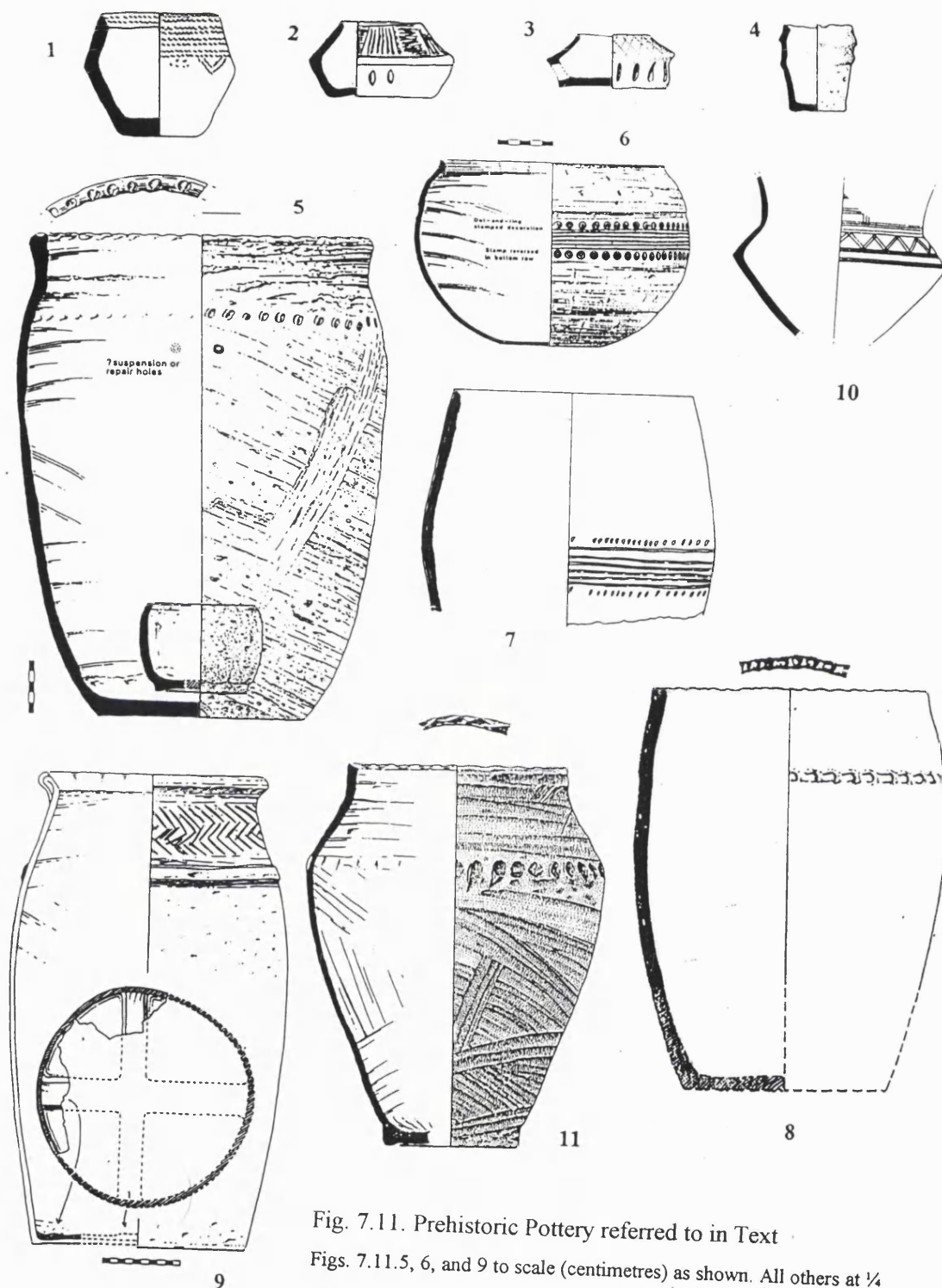


Fig. 7.11. Prehistoric Pottery referred to in Text

Figs. 7.11.5, 6, and 9 to scale (centimetres) as shown. All others at $\frac{1}{4}$

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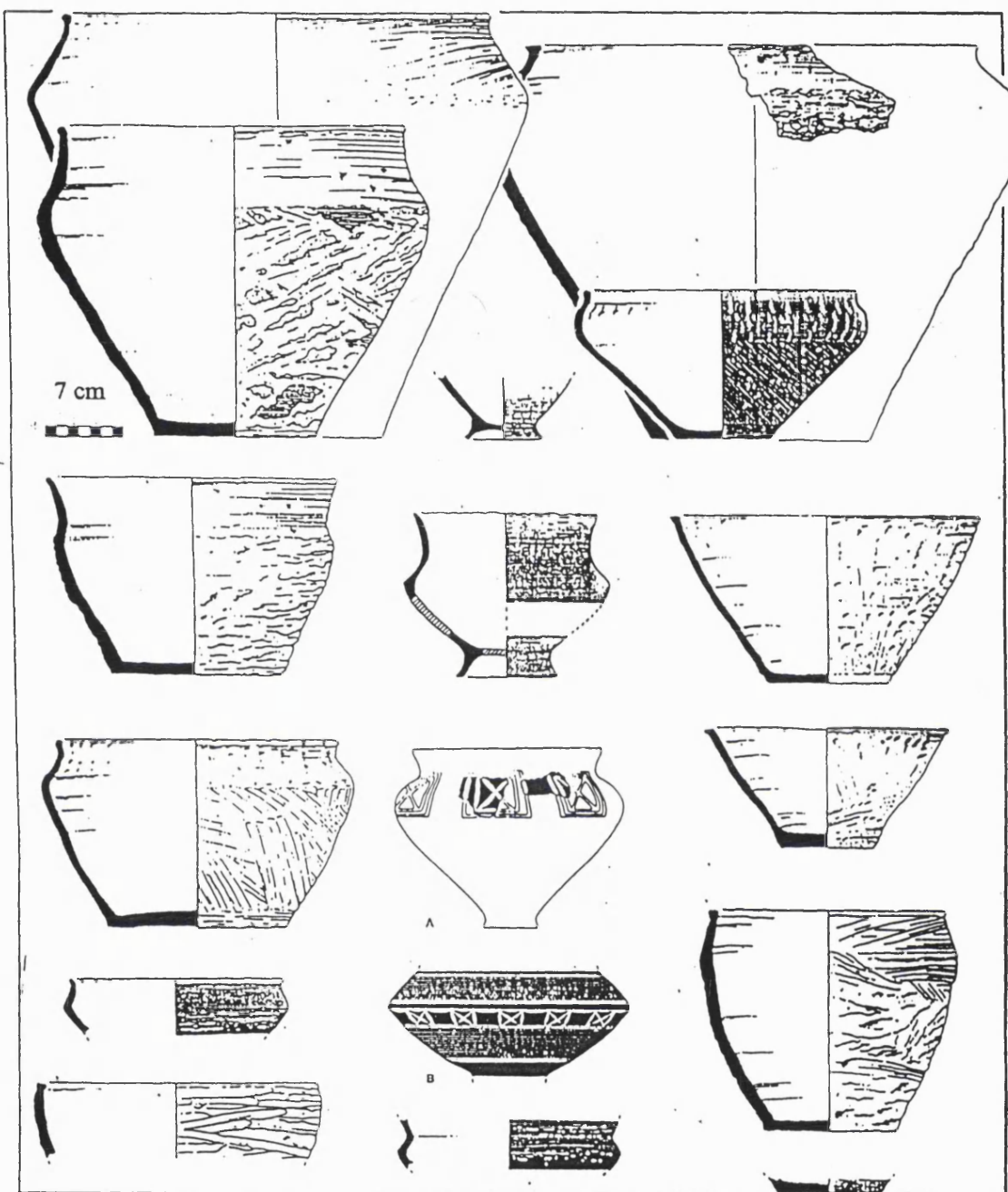


Fig. 7.12. A range of vessels typical of the 'Rusticated Assemblage'

Drawing by Nigel Macpherson-Grant.

Scale as shown in centimetres, vessels A and B are hematite coated.

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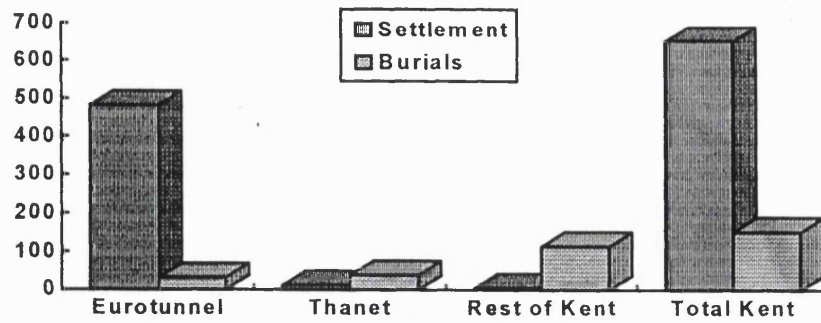


Fig. 7.13. Bar Chart: The Kentish beaker distribution. Provenance: burial versus settlement evidence

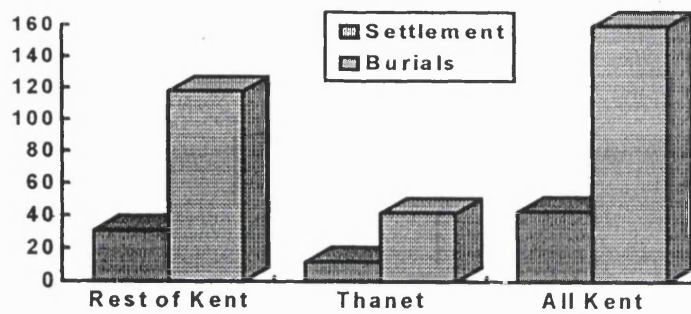


Fig. 7.14. Bar Chart: The Kentish beaker distribution with the Channel Tunnel settlement sites beakers omitted

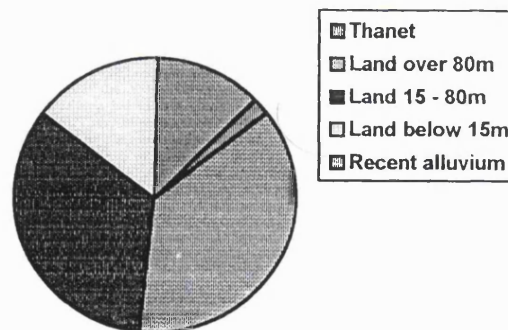


Fig. 7.15. The topography of Kent by percentage of area. Only upland Thanet is shown, falling within the 15 - 80 m. OD bracket. 'Recent alluvium' is - 3 to + 3 m. OD.

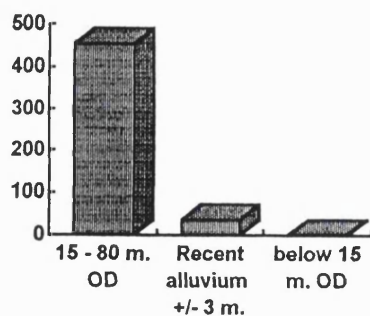


Fig. 7.16. The distribution of beaker settlement evidence in Kent by elevation.

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CHAPTER 8. GEOMORPHOLOGICAL CHANGE; THANET AND THE WANTSUM CHANNEL

8.1. Introduction

Today, anyone entering the Isle of Thanet by road or rail might wonder how the appellation 'Isle' originated, since in crossing the four miles of marshy levels that separate Thanet from mainland Kent, the River Stour and the Wantsum are not very obvious. Nevertheless, Thanet is in the strictest sense an island. The Stour, which exits to the sea at Sandwich Bay, is, despite heavy abstraction, still a wide fast flowing river. Near Thanet's ancient landlocked port of Sarre, it is joined by the Wantsum, now a tiny brook. This passes under a modern sea wall at Coldharbour near Reculver, and when not pent by a sluice gate, runs into the lower Thames Estuary.

The name Wantsum (OE *Wædsum*: winding) nowadays belonging to an insignificant watercourse, was once that of a major sea channel separating Thanet from Kent. Archaeological and historical evidence establishes that the channel was an important maritime short-cut and haven in prehistory and until AD 1000, although the name suggests that by the latter date it was so silted as to assume the character of a double estuary for the Stour. It was nevertheless still navigable by the largest vessels of those days, and remained so until a little after AD 1500, after which it was used by small craft until about AD 1650 when low bridges and a sluice denied them passage (Lewis 1723, 10). The nature and role of the Wantsum as a prehistoric sea route of major importance in cross-Channel trade forms a main building block to the central thesis of this study. This chapter therefore summarises the history of the sea channel from formation to final closure, and explores the effects of contemporaneous geophysical changes on the Isle of Thanet.

8.2. The geology of north-east Kent

The underlying geology of Thanet and north-east Kent is that of the eastern-most extension of the North Downs chalk. Thanet constitutes a final anticline of the chalk before it dips away under the North Sea, and it is separated from the rest of the North Downs by a syncline that when inundated formed the Wantsum Channel. Only the Upper Chalk is exposed throughout the area, in a layer between 91 and 116 m. in depth (Holmes 1981). This Upper Cretaceous bedrock has been eroded by a series of glacial events in the remote past, and the chalk and overlaying strata are everywhere unconformable (Bisson 1981).

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Above the chalk there is a considerable variation in the Tertiary deposits. The oldest of these, the Thanet Beds, covered consecutively by the Woolwich and Oldhaven Beds, London Clay, and Claygate and Bagshot Beds, exists in columnar association in a few places, notably at Bishopstone Glen near Reculver. Elsewhere these deposits have mostly been denuded, and the sequence, or part of it, survives only in valleys or on the syncline slopes. Over most of Thanet and north-east Kent the overburden and the derived topsoil is of Pleistocene and more recent origin and fall into two broad categories, River gravels from the Stour Terraces, and Head Brickearth which is thought at least in part to be wind-born (Weir *et. al.* 1971).

The geological structure of the Wantsum Channel deposits (mid channel) as established by borings (Geological Survey of Great Britain, Sheet 24) is in ascending level as follows:

- 1) The Upper Chalk rises to -39.0 m. OD.
- 2) Deposits of either Thanet Beds sands 31 m. thick rise to -9.0 m. OD.
- 3) Alluvium from -9.0 m. OD to +1.80 m. OD (the upper 1.80 m. being Stour flood-plain deposits).

From the above it would seem that the Wantsum was never more than about 9.0 m. deep, but during civil engineering work in 1923 test borings found that the upper 12.0 m. of the Thanet Beds was re-deposited material containing marine shells (Hardman and Stebbing 1940). This means that at the point of boring, south of Weatherlees Hill, The Wantsum sea bed was -21.0 m. OD at the commencement of inundation..

8.3. The inundation of the Wantsum Channel

The curve of sea level rise with time is shown as an estimate in Fig. 8.1. This has been prepared from the means of all relevant estimates given by Devoy (1979) and covers the last 8000 years with a total rise of 21.0 m., agreeing with the maximum depth of the Wantsum Channel sea-bed as shown above. Were there enough data to plot a number of geological cross-sections of the channel it would be possible to show the progress of inundation with a series of plans as is the case with its closure during the historical period. So little is known however of the buried contours of pre-inundation land surfaces that the best that can be done is to show the situation 2000 years ago (Fig. 8.2), based on the horizontal limits of the Wantsum alluvial plain. The chronological span of this study is in general 2000 BC - AD 1, during which sea level is estimated to have risen about 2.0 m. Core boring for pollen analysis (Scaife in Hearne and Perkins 1995) revealed an inundated land surface at - 1.58 m. OD between the shorelines of the

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Ebbsfleet peninsular and the then Island of Weatherlees. Based on this a conjectural shorelines in 1500 BC has been shown in Fig. 8.2 in broken line.

It must be pointed out that there has in the past been another interpretation of the prehistoric configuration of the south mouth of the Wantsum as shown in Fig. 8.2. This was proffered by George Dowker (1897) and had currency until the 1940s. Dowker rejected Ebbsfleet in Thanet as the landing place of Hengest and St Augustine. He believed the ancient tradition, Bede, and all subsequent writers to be wrong in this attribution. The 'real' Ebbsfleet he thought to be Stonar, near Sandwich. His thesis was that the southern entrance to the Wantsum had been narrow almost since the formation of the English Channel, and situated at Stonar. Thus Ebbsfleet in Thanet would have been landlocked at the time of Augustine and could not be the landing site. This theory was based on three assertions: i) That during the initial filling of the English Channel the dominant tidal current ran southward through the Dover Strait from the North Sea, this process for some unknown reason reversing once the Channel had filled. ii) That the southward current brought great quantities of eroded flints from the Thanet cliffs to form the Stonar Bank. iii) That the Stonar Bank extended southward from Thanet as it was deposited.

Since events i) - iii) had occurred just after the end of the last glaciation, by Roman times a situation would have existed as shown in Fig. 8.3. So strongly did Dowker, a Fellow of the Geological Society, put this case that subsequent studies of the Wantsum accepted all or part of it for many years, and it even surfaces occasionally today. Hardman and Stebbing (1940-41) in their history of Stonar were cautious about rejecting it in entirety, although their paper contained data that invalidated it. Rebuttal of Dowker's theory in the order that he proffered it can be made as follows:

- I) Dowker's contention, that of a strong southward current through the Dover Strait, subsequently reversed, is purely hypothetical, and without any shred of supporting evidence. He did not know that there is in fact a net residual southward current, although this has no effect on the deposition of shingle which is brought north along the Channel coast by strong inshore currents.
- II) Flint bands in the Thanet Cliffs are too thin and few to have supplied the Stonar Bank flints, whatever the scale of erosion. The origin of the Stonar flints is obscure although they contain erratics thought to come from East Anglia (Baden-Powell 1942). Further, borings through the flints found at a depth of 12.0 m. a channel floor scoured of Thanet Beds sand down to chalk (Hardman and Stebbing 1940, 74). Precisely demonstrating the one-time existence of the wide Wantsum south mouth denied by Dowker.
- III) There is no evidence that the Stonar Bank extended southward from Thanet. To the contrary, it becomes attenuated the further north it goes towards Thanet, and disappears

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1200 m. south of Ebbsfleet. From that point on, as revealed by a deep pipeline cut in 1992, only alluvial and estuarine measures are present capped thinly with beach deposits.

While Dowker's theory as to the formation of the Stonar Bank can no longer be accepted, the process is still a matter for speculation, of which those of Robinson and Cloet (1953) postulating the on-shore migration of an off-shore bank have current support among geologists

8.4. The Wantsum Channel when fully inundated, dimensions and tidal effects

At the time of Caesar's raid into Kent in 55 BC the Wantsum Channel probably reached its maximum width and depth, and geophysical effects leading to its deterioration had commenced. As can be seen in Fig. 8.2, the northern and southern mouths of the channel were both about 4000 m. across, narrowing to 1000 m. between Wall End and Sarre (the traditional Medieval ferry crossing) and 800 m. between Sarre and the Stourmouth island. There were a number of islands in the channel as shown in Fig 8.2, and probably others that, having been ploughed or eroded to the level of the alluvium, have escaped notice.

As stated above, borings indicate a maximum mid-channel depth of 21.0 m. Along the shores and round the islands depths would have been much less, large areas probably being exposed as saltings on the low water as is the case today on the Swale at Sheppey. Lunar effects on the North Sea give it a slightly different tidal clock to that of the Dover Strait, and its flow into the Strait on falling tides is more powerful than the reverse (Admiralty data in 1996 Channel Pilot). This, combined with the pent-up release of the Thames flow on falling tides and the deflected flow of the Stour would have made for a much stronger north - south tidal current within the Wantsum on the ebb than the reverse on the flow, a factor leading eventually to dire consequences for the channel, (Section 8.6).

8.5. The navigation of the Wantsum Channel; historical and archaeological sources

In 55 BC Caesar ran his fleet ashore on the shingle storm beaches west of the Wantsum instead of anchoring at Richborough, thus courting destruction in a subsequent storm (Frere 1967). According to Sheppard Frere (1967, 30), the near disaster that ensued resulted from Caesar's lack of reconnaissance information. The Claudian invasion fleet of AD 43 made their landfall at Richborough, at that time not yet an island, and a camp was constructed. About AD 80 Richborough was expanded into a great supply base and fort (Retupiae), and it was probably Agricola who set up the great triumphal monument at its centre, 'marking the conquest of all

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Britain, at the gateway to the island' (Frere 1967, 118). Late in the third century in response to the threat from Saxon sea raiders Richborough and Reculver (Regulbium) were rebuilt as stone Saxon Shore forts. Richborough became headquarters of a Legion, Legio II Augusta, and in AD 386 Theodosius used the fort as the bridgehead for his pacification of Britain. The Wantsum was therefore of fundamental importance to the Romans throughout the whole of their occupation, in respect of both trade and defence.

In the Dark Ages Sarre was one of the two principal ports of the Kentish kingdom and was under the command of a port reeve (Hawkes 1982, 76). The Danes wintered in Thanet in AD 851 and 860, and seem to have made the island a base, so that King Edgar ordered the island to be harried in AD 969 and 980. In AD 1046 the Danes raided Sandwich with twenty-five ships and sailed round Thanet (AS. Chron. E 1045). Harold and his father Earl Godwin with a great fleet sailed from Dover to London via Sandwich and North-Mouth in AD 1052. The Thames became frozen for several weeks in AD 1269, so that goods from Sandwich had to be transported overland (Stow quoted in Scott-Robinson 1878).

Thereafter there are few explicit references to maritime traffic in the Wantsum. Scott-Robinson believed that this was because the route was so well known as to be taken for granted, the whole waterway from London to Sandwich being occasionally spoken of as the Thames (Scott-Robinson 338). He pointed out that London had claimed jurisdiction over Stonar as a subject town, and mentions also a survey of the Thames banks by commissioners in 1374-5, which went 'from Gravesend to Sheppey, and thence to Reculver *and so to Sandwich and Dover*'. After this date most references to the Wantsum relate to its deterioration, although implying some sort of traffic was possible until about the year 1460 (Section 8.7). Thomas of Elmham's 'map' of Thanet (dated about 1414) shows a passenger being carried out through the shallows to the ferry at Sarre on the shoulders of a boatman (Fig. 8.4), in what is depicted as a broad channel. Not much reliance can be placed on this schematic drawing unless perhaps as an indication that the ship channel and ferry crossing were both viable at that time.

The little archaeological work carried out to date on the Wantsum alluvial plain and ancient shore lines consists of pipeline watching briefs in 1987 and 1994 with an evaluation in the same year. The writer directed both these operations. In 1987 a deep pipeline trench was cut between Wall End and Sarre parallel to the line of a post-Medieval flood defence and road, the 'Sarre Wall' (Perkins 1989). Along the whole length, about 1000 m., the trench cut revealed saturated alluvial deposits with bands of marine and estuarine shells to a depth of 4.0 m., demonstrating the width of the Wantsum after full inundation. In two places roughly midway in the channel "Red Hill" sites were found during topsoil stripping. They consisted of mounds 20 m. and 35 m. in diameter rising about 0.80 m. above the surrounding land surface. The soil of which

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they were composed had been fired to a bright red, and in some places was of sub-ceramic consistency. Find included briquetage and pot sherds in a local shell-tempered medieval fabric, c. AD 1150-75. Unfortunately the trenching technique adopted under the extreme conditions of saturation did not allow the writer to determine whether these salt making sites had been established on islands in the Wantsum, or consolidated alluvium.

In 1994 the pipeline watching brief and evaluation were carried out in relation to construction of a wastewater treatment works between Ebbsfleet and Weatherlees Hill (Hearne and Perkins 1995). During the evaluation trenching and topsoil stripping on the west side of the Ebbsfleet peninsular (see 'Shoreline Area' in Fig.8.5) exposed a steeply shelving marine shoreline buried under alluvium. Tideline deposits on the shore contained remains of marine rather than estuarine creatures, and water rolled chalk boulders were present, bearing the bore holes of piddocks (*Pholas dactylus*) also the shells of sand gapers (*Scrobicularia plana*). It should be noted that these species are not edible, and so are likely to be *in situ* rather than midden material. Just east of this shoreline and running either into it or parallel to it, were a number of ditches, presumably to drain off flood water. These contained midden materials including many marine shells, and medieval pot sherds ranging in date from the eleventh to early fourteenth centuries. This is good evidence for the west side of the Ebbsfleet peninsula constituting the sea shore up to the fourteenth century, presumably as the eastern side of the Wantsum south mouth.

8.6. The silting and 'inning' of the Wantsum by natural process and human agency

The silting of the Wantsum Channel commenced as a natural process fairly late in prehistoric times with the establishment in its south mouth of the Stonar Bank, which is presumed to have arrived there by off-shore migration (Robinson & Cloet 1953). The Stonar Bank did not join the shore of mainland Kent near the site of modern Sandwich, probably being scoured away by the force of several small rivers draining the North Downs. Of these the Delft and North Stream are still extant, and others can be traced. After the bank had formed, great quantities of flint shingle were carried north by inshore tidal currents in the English Channel, and deposited by gravity in the area of tidal slack caused by the Stonar Bank (Robinson & Cloet 1953). The timing of these events is uncertain, although both areas were habitable by or after AD 50 from the evidence of Roman settlement remains (Fig. 8.6).

After the Norman Conquest the Wantsum starts to attract attention as presumably deterioration was noticed. In AD 1267 there was an official perambulation by the Lord Warden of the Cinque Ports, who inspected both the Thanet and mainland shores (Boys 1792, 70). It is

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worth quoting his itinerary at length, as it establishes, without saying so, that there were two southern entrances to the Wantsum at that time:

“First beginning at the Stone Cross, at the west part of the town, near the causeway or common road between Sandwich and Ech, which cross is within the liberty; and from thence going along close by the river side, to Northmouth, everywhere by the line of high water mark, at spring tide; and then returning along the other margin of the river on the opposite side, through Sarr and Boxley in Thanet, to the shore at the passage directly against the cross of Hennebergh; and from that cross straight on the opposite side to the sea; and thence along the sea shore to Stonore, including the whole town of Stonore and the marshes within Hennebergh which are within the precinct of the liberty aforesaid; and on the other side of the river, crossing over to Peperness, and thence to a stream that runs into the river called the Gestling, by the thief downs, where persons condemned within the liberty are buried alive, and so going along that stream to a marsh called Holburgh, belonging to the lord of Poldre”

The two references (underlined) in Boys’ translation clearly demonstrate that at that time there were two southern mouths to the Wantsum, and it is quite surprising that their significance went un-noticed by later writers. The first has the Lord Warden’s party on the Thanet shore, then crossing the passage¹ opposite the cross² at Hennebergh (later known as ‘Little Joy’). The position of Hennebergh under its later name can be found from eighteenth century maps to lie opposite or just north of Stonar Cut, this coinciding with the extreme northern extension of the Stonar Bank shingle. The party having crossed one southern mouth of the Wantsum then proceed along the sea shore to Stonar, and then cross over the river (Stour) to Peperness on the mainland. The name Peperness has often been thought to refer to the shingle point on the east side of the mouth of the Stour estuary (actually called Shell Ness). This is a case of the name migrating with the increase of the shingle. Peperness was anciently ‘south of Sandwich Haven’ and in Boys’ day on the river bank opposite Halfway House. Obviously, at the time of the Lord Warden’s perambulation a situation existed similar to that given in Fig. 8.6. Worse was to come however.

During the later part of the thirteenth century the Ebbsfleet channel had silted so badly that merchant shipping could not negotiate it and had to enter the Wantsum via Sandwich Haven (Hardman and Stebbing 1941, 50). This progressive silting meant that the Haven now had to

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handle the major share of river flow and Wantsum tidal current, and itself started to silt badly. The people of Sandwich reacted with fury to this, believing that the Ebbsfleet channel was closing as a result of 'inning' and other activities carried out by the Abbot of St. Augustines. In 1266 men of Sandwich and Stonar burnt two water mills at Ebbsfleet and Stonore (Hennebergh) that obstructed the Ebbsfleet channel (Davis 1934). The Abbot commenced legal action against the people of Sandwich in 1280, and it appears from this that he had built a sea defence wall from Stonar to Cliffsend that was being vandalised by the Sandwich men (Boys 1792, 660). This sea wall does not appear however to have entirely blocked the Ebbsfleet channel, at that time known as Minster Flete. Boys' map of the Stour made in 1775 shows it as 'Minster sewer' (sluice) running into the Stour east of Weatherlees Hill. So ended the Ebbsfleet mouth of the Wantsum, of which it was said in 1313 that it 'used to be so wide that two cogges (Cogs) could might turn therein clear of one another' (Boys 1792, 665). With the Wantsum from Northmouth to Sandwich Haven now silting fast, and subject to extensive inning and draining operations from both banks, its fate as a navigable channel was sealed.

8.7. The final demise of the Wantsum as a navigable waterway; historical sources

By an Act of Parliament of Henry VII, in 1485 a bridge was allowed to replace the ferry at Sarre, since the channel was so silted there that neither the ferry or other vessels could pass except on spring tides. Even so it was stipulated that the arches had to be big enough for boats and lighters to pass, in the hope that 'the water shall happen to increase' (Scott-Robertson 1878).

John Twine writing in 1590 (quoted by Scott-Robertson 1878) claimed that:

"there are eight worthy men still living who have seen not only the smallest boats but larger barks pass and repass between that isle and our continent".

A paper of about 1650 in the archives of Quex Park, Thanet (seen by the writer), has one of the Crispe family deploring the fact that a boat can no longer be sailed from Stourmouth to Northmouth, *"as the Wantsum has been let to be overgrown with trees"*. Seventy years on however, John Lewis heard local farmers talking of *"crossing over to England"* on their way to Canterbury Market (Lewis 1723, 11). By this time the whole area of the one-time Wantsum Channel had become an alluvial flood plain cut by the Stour making its way via many oxbow bends to the relic of Sandwich haven and thence north to the sea. Even so, in its convoluted course the river approaches so close to the ancient Ebbsfleet entrance that in the eighteenth century Smeaton and others almost re-established it with the 'Stonar Cut (Fig. 8.7). This was not an attempt however to allow river craft to bypass Sandwich, but to use pent up river water

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released through a sluice to scour the lower reaches of the river estuary (Hardman and Stebbing 1940, 69).

8.8. The Isle of Thanet; land lost through inundation and erosion

As soon as Thanet had become an island, various forces of nature began to reduce it. On its eastern and southern shores where the underlying geology is that of the Thanet Beds over chalk and the terrain is one of gentle slopes, the process was that of inundation. Three sites in the inter-tidal zone at Minnis Bay, Birchington and St. Mildred's Bay, Westgate, give some indication of the loss to the sea (see Appendix 5.2, List 1, Site 14, and List 4, Sites 29 and 35). The first of these, a Neolithic site, is situated 500 m. beyond the modern shoreline on what would have been a low lying gently sloping plain. Two others, both Late Bronze Age sites, are much nearer, being less than 100 m. from the modern shore. Both these sites were however bank-side settlements in river valleys, and were inundated as sea level rises converted the valleys into tidal creeks. An estimate of the west Thanet land area lost by inundation has to be extrapolated from modern elevation contours, and the possible loss is given in Fig. 8.8.

On the eastern half of the island where the topography is that of steeply folded chalk downland, sea level rises commenced a complex but roughly measurable process of which the writer here gives a description based on many years of observation. Wave action on a steeply shelving chalk hillside shoreline will erode the chalk and create a level 'wave cut shelf', (Fig. 8.1). The outer edge of this wave cut shelf represents the mean low water mark. At high water, the breakers rushing across the shelf will cut a cliff face which will become progressively higher as the exposed vertical chalk surface erodes with the frosts and rain. Eventually, an equilibrium will be reached when the wave cut shelf is too wide for the breakers to maintain their force, and the base of the cliff gains a protective belt of fallen chalk boulders and soil.

The preceding process can repeat itself in two ways. By a sudden marine transgression, when the new much higher sea level makes the base of the cliff the outer edge of a new wave cut shelf. Or, alternatively and very slowly, by the destruction of the existing wave cut shelf, this making wave attrition again possible. This is brought about as the seaward run-off of surface water on falling tides cuts gullies in the shelf at right angles to the cliff line. When heavy seas are breaking on the shore at an oblique angle, the walls of the gullies cause resistance and they are eroded by wave action, this leaving a series of ever widening sand filled bays in the chalk shelf. Thus, without significant rises in sea level, the forces of wave and weather can reduce a chalk downland coast.

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The rate of cliff erosion by the foregoing process is locally variable and depends on three factors. Firstly the height of the cliff at a given point. Secondly its exposure to weather. The cliffs on Thanet's south coast face the prevailing south-westerlies for nine months in the year, while the north coast is battered by freezing northerly and easterly gales through the three winter months. The net effect seems to be worse on the northern shore. A third factor consists of varying structure and hardness of the Upper Chalk. The northern and eastern cliffs tend to be formed of chalk in a friable tabular structure, although this is often pierced vertically by 'pipes' of much harder material. Given such variability, cliff erosion can produce some interesting effects such as the chalk 'stacks' shown in Fig. 8.9.

As complex as the erosion process is, it is still possible to calculate a mean rate for attrition over the last two centuries, and there seems no reason why this cannot be applied in the much longer term. Measurable changes have occurred during the writer's lifetime, their point of reference being cliff-top World War II defences at Pegwell, Ramsgate, in their one-time relationship to a still extant metalled field path. Photographs taken at Kingsgate Bay, Broadstairs, in the 1920s and surviving as postcards are also useful, showing a measurable grassy strip between the coastal road and cliff-top which no longer exists. For earlier evidence, recourse can be made to a map of Margate and its surroundings drawn in 1810 of which the writer has a copy. It was prepared by officers of an artillery regiment stationed in the town in that year. This map was drawn nearly to modern OS standards, and shows the then cliff line in relationship to a number of buildings still standing. The earliest calculations possible are from a very accurate estate plan and architect's drawing. In 1761, Henry, the first Lord Holland and father of Charles James Fox, brought an estate at Kingsgate, Broadstairs, and built 'Holland House' within a complex of gothic follies. The house still stands, as do some of the follies, but others are gone along with a strip of land some seventy metres wide. Combining data, some of it additional to the above, the writer calculates a mean loss rate by cliff erosion of approximately thirty metres per century. From this it would seem that the chalk downland shores of eastern Thanet have lost a coastal strip twelve hundred metres wide during the last four thousand years, this extrapolation being shown in Fig. 8.8.

8.9 Summary

It can be seen therefore that Thanet was an island throughout the Neolithic and Bronze Ages, and continued so in the generally understood sense of the term until late in the medieval period. Moreover, that the body of water separating it from mainland Kent, the Wantsum, was for most

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of that time of such magnitude as to be un-crossable except by boat, and of such depth as to be navigable by the largest vessels of the day. The Thanet of 2000 BC was by a crude calculation about 25% greater in area than its extent in Roman times, the progressive loss being occasioned by inundation and erosion. Chapter 5 demonstrates that even without allowing for this lost land area, Thanet held, by comparison with mainland Kent, a high concentration of settlement in all the prehistoric periods. The proposition that limitations in prehistoric maritime technology gave the Wantsum, and by association Thanet, a special role in cross-Channel trade is put in the next chapter.

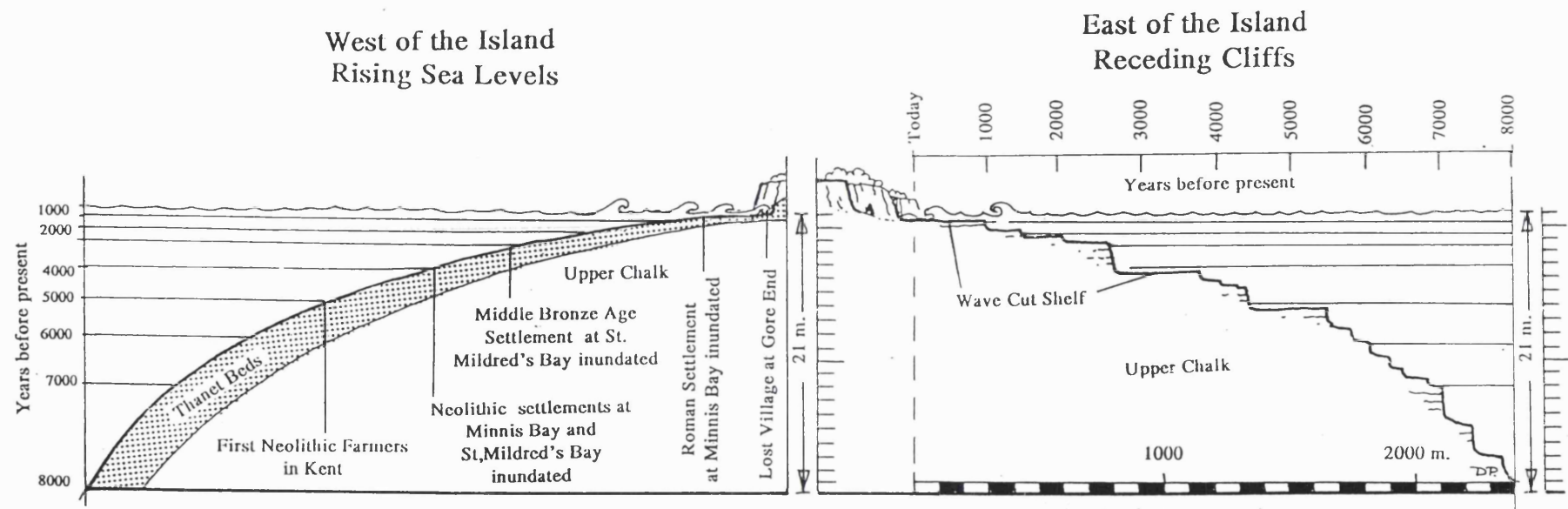


Fig. 8.1. The effects of rising sea levels and wave attrition on the Isle of Thanet through 8000 years

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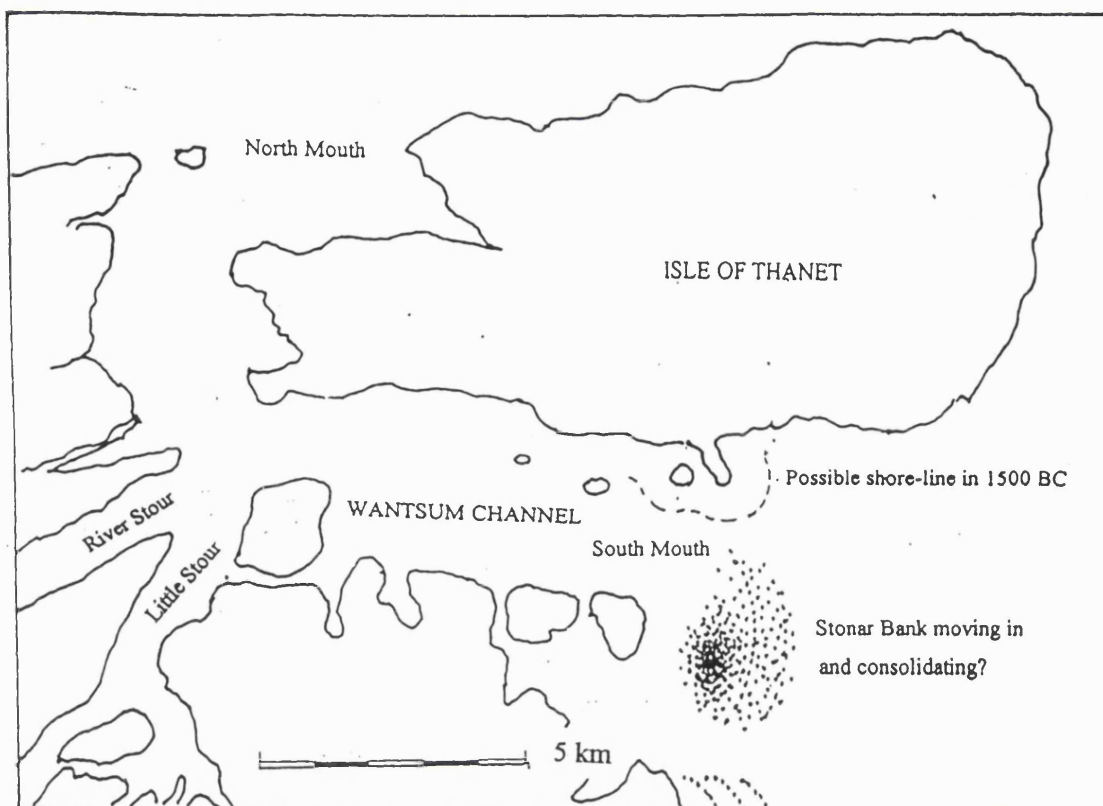


Fig. 8.2. Full inundation of the Wantsum Channel 2000 years ago

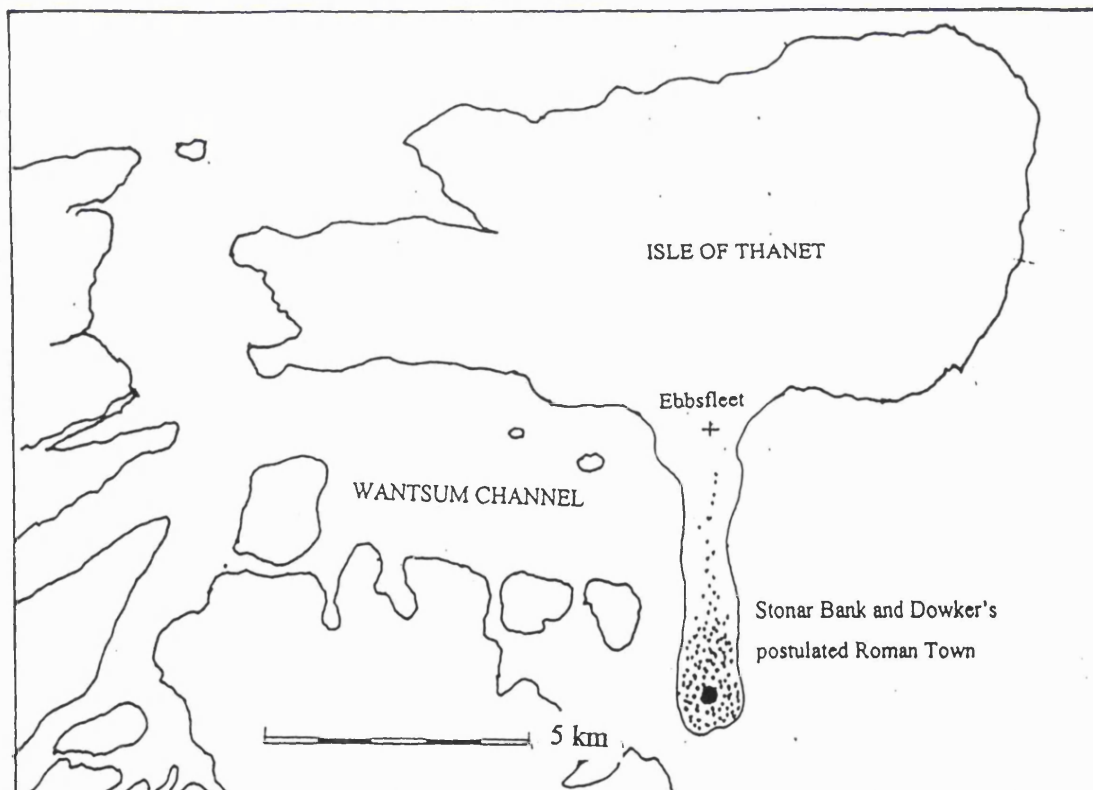


Fig. 8.3. An interpretation from George Dowker's text of his reconstruction of the Wantsum Channel c. 2000 BC

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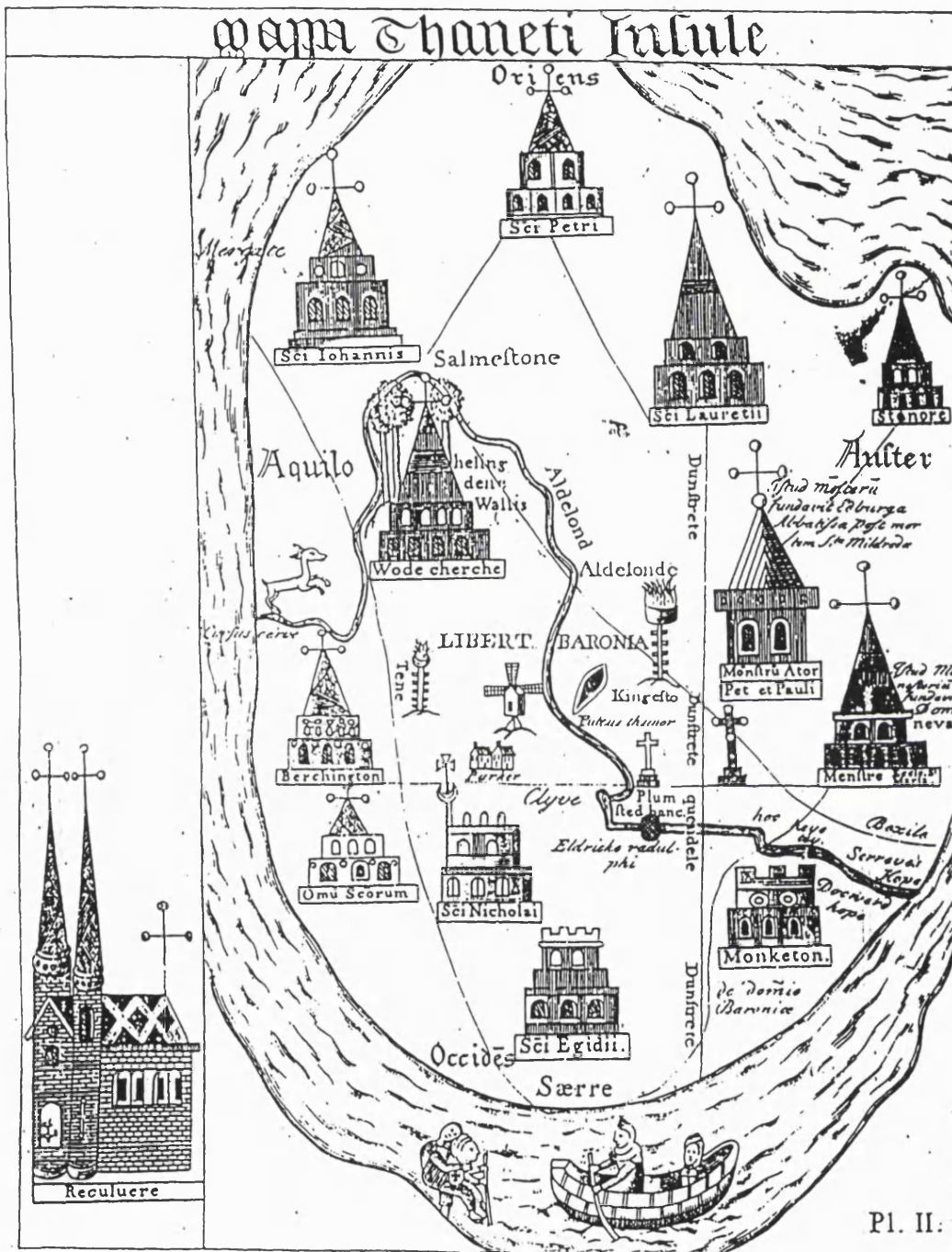


Fig. 8.4. Thomas of Elmham's 'map' of Thanet dated about 1414
(reproduced from the engaving in Lewis 1723)

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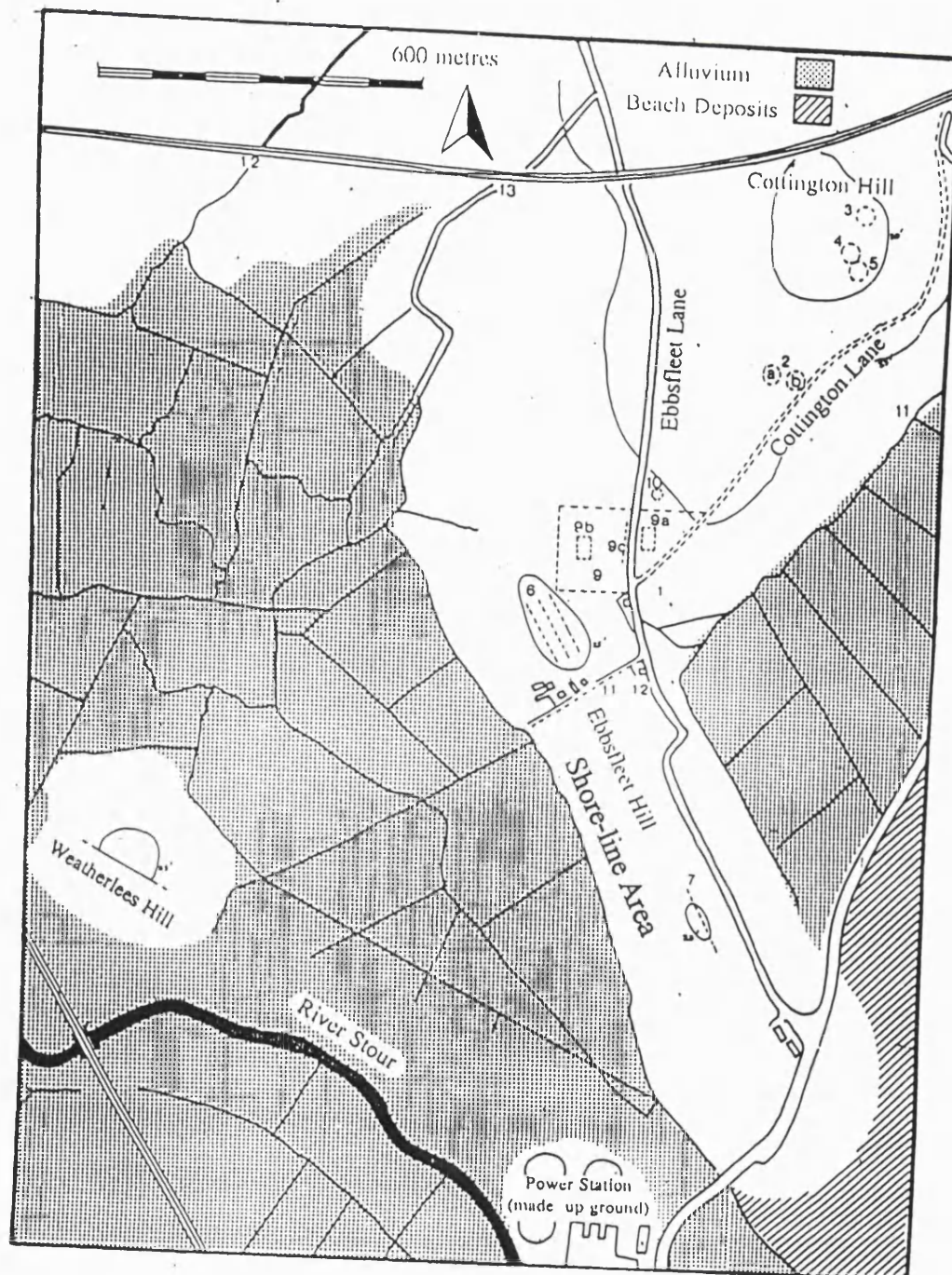


Fig. 8.5. The shore-line at Ebbsfleet investigated by the writer in 1992
Site numbers as in Perkins (1992b).

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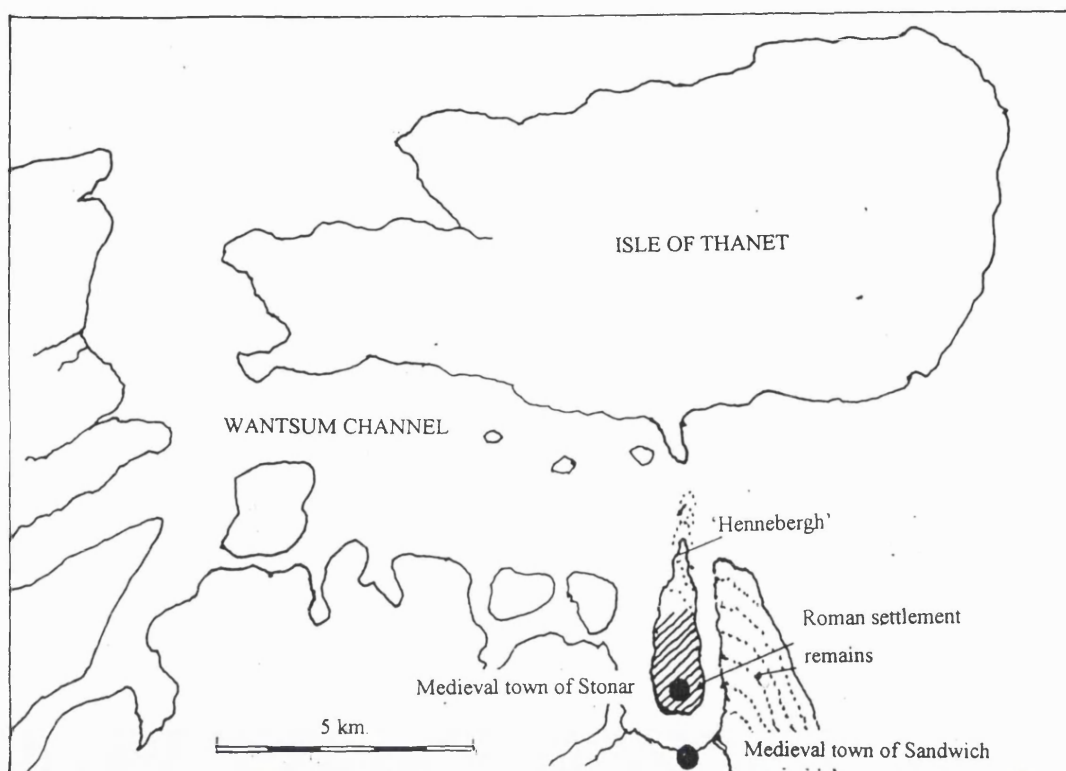


Fig. 8.6. The establishment of the Stonar Bank and accumulating shingle storm beaches

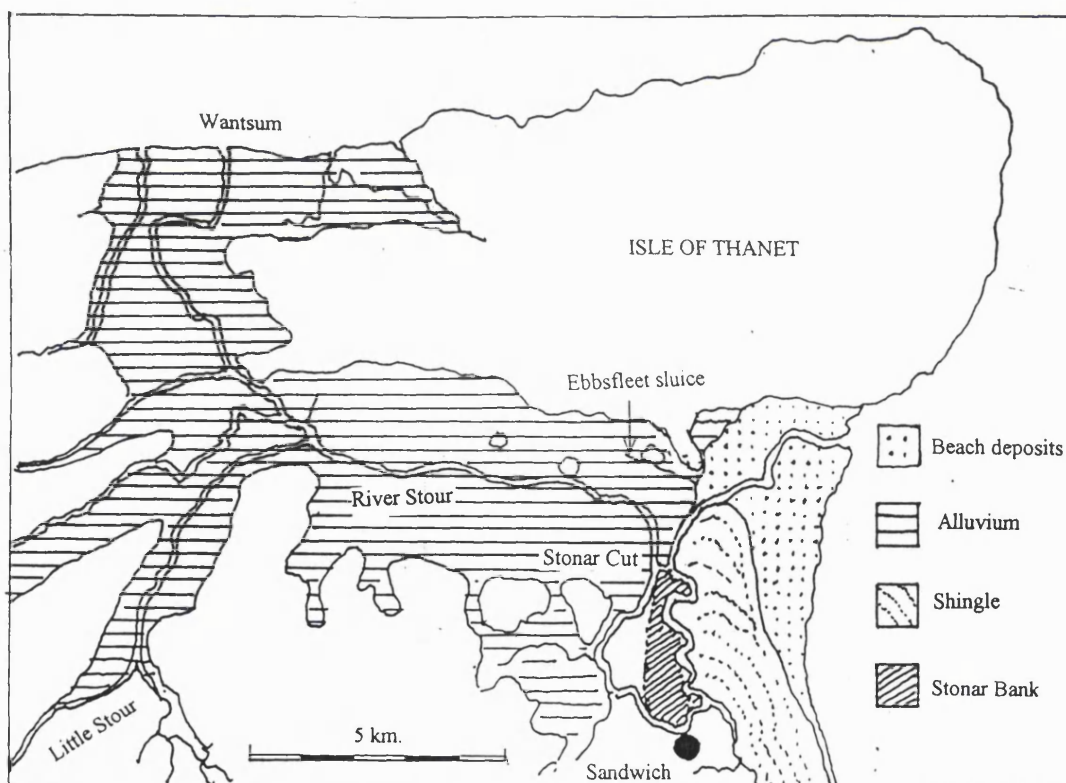


Fig. 8.7. The final phase of the 'inning' of the Wantsum, from after AD 1500 to today

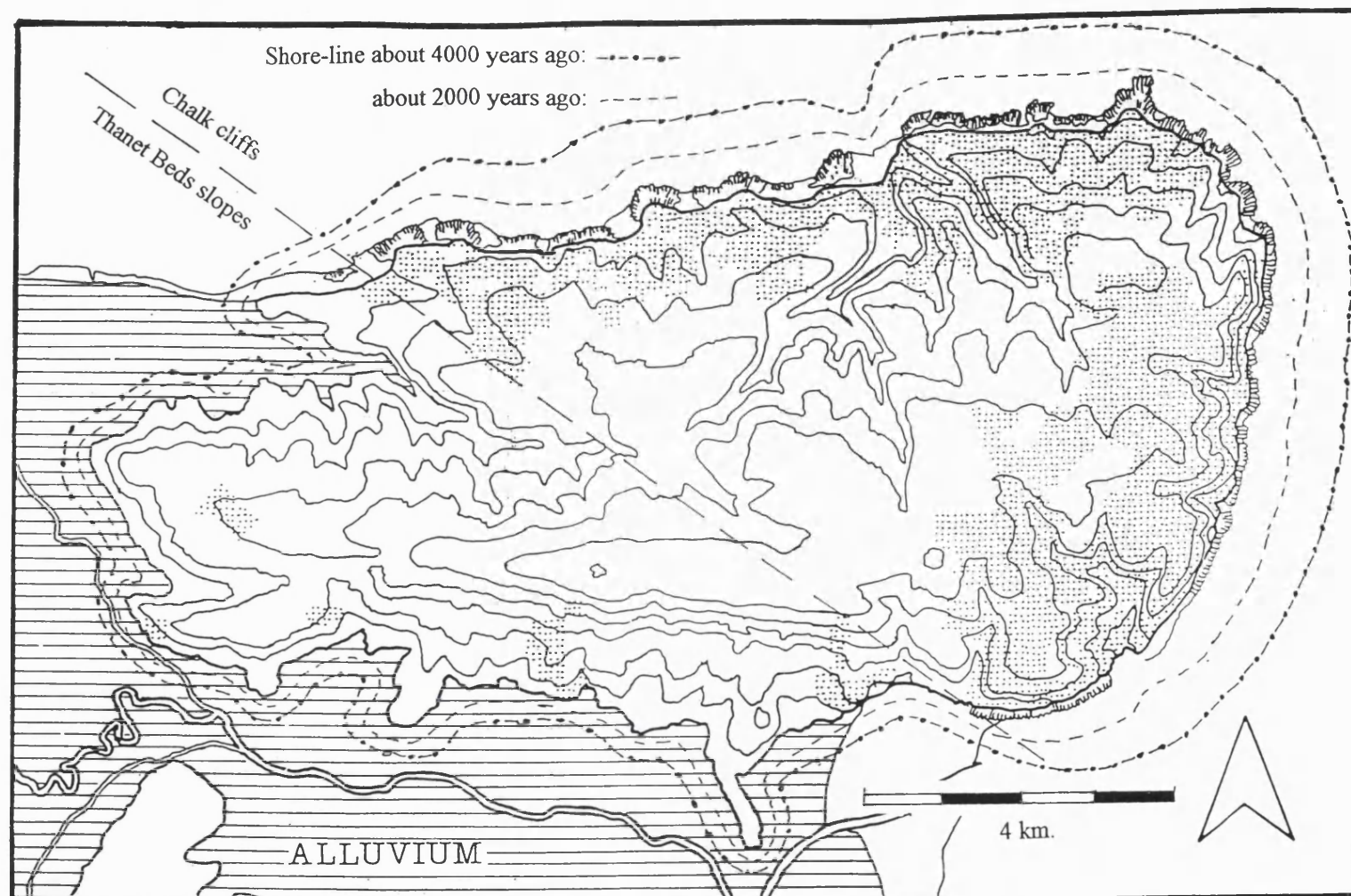


Fig. 8.8. Calculated loss of land in the Isle of Thanet through inundation and cliff erosion



Fig. 8.9. Chalk 'Stacks' at Foreness Point in Thanet showing selective erosion and wave attrition

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CHAPTER 9. EVOLUTION IN SHIP DESIGN AND PREHISTORIC MARITIME TRAFFIC IN THE NORTH SEA, ENGLISH CHANNEL AND WANTSUM

9.1. Introduction

Were it the case that the Isle of Thanet was home in the Bronze Age to a Gateway Community, to function, such a community would need to control and funnel maritime traffic. It could do that in two ways, either by virtue of its location forming a physical gateway at a point on the only viable sea route, and/or by insuring that the only seafarers allowed passage with traders and their goods 'belonged' to the Gateway Community itself. Such control could only be achieved and maintained so long as developments in the design of sea going craft did not overcome a hostile marine environment and allow the pioneering of alternative sea routes. These factors, of marine environment and the evolution of maritime technology are here discussed, also the techniques necessary for cross-Channel navigation, the seafaring community that would have employed them, and their likely relationship with a Gateway Community. In this a cognitive-processual approach as outlined by Colin Renfrew *et al* (Renfrew and Bahn 1991, Renfrew and Zubrow 1994) has been adopted, and inferences are drawn and comparisons made that fall within the upper echelons of Hawkes' hierarchy or ladder of inference (Hawkes 1954), those areas of ancient human activity such as social organisation and religion that lie at or beyond the boundaries of material evidence.

Cognitive- processual archaeology is a further step in the evolution of archaeological theory that began with the New Archaeology of the 1960s, evolving as the functional-processualist approach. The latter sought to isolate and study the various processes at work within a society, material, social, and ideological, and the interactions between them. Since the 1970s, the processualist approach has been challenged by structuralist, post-processualist, and neo-Marxist theories, the last two of which promote the role of the individual, ideology, and symbolism, in forming and changing societies, rather than these being products of a society's economic base, with that base being inevitably the underlying controlling factor. The cognitive processual approach that emerged in the 1980s is a synthesis that remains in the mainstream of processual archaeology, while being able to adapt itself to developments in post-processual archaeology. It seeks to understand observed patterns of events and the evolution of cultural motifs. To explain them rather than merely to describe them, and, to this end, to formulate hypotheses and test them against the data. It recognises that while material culture is an active factor in our world, people construct their own social reality, within which the material has its part.

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9.2. The design evolution of sea going craft in north-west Europe

In attempting to recreate and discuss maritime navigation in the North Sea, English Channel, and Wantsum Channel in prehistory, it is necessary herein to briefly review the evolution of sea going craft during the period, although much has been published on the subject and research is ongoing. This is because the tidal currents and prevailing winds described in the next section would have placed strictures on certain types of craft, their design limitations determining if, where, and under what conditions they could make a Channel crossing.

While it was quite possible for prehistoric venturers to cross the English Channel in dugout canoes or on rafts, the low freeboard of the first would have meant a wet uncomfortable voyage with the strong possibility of capsize. On a raft the duration of the crossing and point of arrival, if indeed the crew did arrive, would have been wholly subject to the chance of tidal currents and weather. The first craft to appear that were capable of making a cross-channel journey with anything like a practical cargo would have been skin boats and planked dugouts. The evidence for prehistoric skin boats consists almost entirely of pictorial depictions and models (Johnstone 1980, 29, 124, 128). Their practicality is however attested by surviving forms such as the Irish curragh and Eskimo umiak. Their main disadvantage lies in their susceptibility to leeway, a product of their buoyancy and consequent high profile. Notwithstanding this, a small gold model from Brough, County Derry, (1st century BC) that is commonly held to depict a skin boat has a mast and yard as well as seven oars aside (Marsden 1972, 124). Such a craft if constructed of wickerwork over a pinned frame would be rigid enough to mount a mast and sail as was demonstrated by the voyage from Ireland to Iceland of a modern replica, the St. Brendan.

Where the availability of huge trees made this possible, dugout outrigger and double canoes such as those of the Pacific could be constructed (Johnstone 1980, 203). In Britain and Ireland the sewn -planked boat was developed (Johnstone 1980, 155). Such craft presumably originated from dugouts that were extended by adding raised sides formed from planks sewn together with yew withies. The evolved form was constructed from butt-joined stitched planks built up from a long joined keel plank. Remains of such craft include the North Ferriby boats (Wright 1994), the boat from Caldicot, Gwent (McGrail 1994), and the Dover boat (Parfitt 1993). Thus far no evidence has emerged to suggest that masts were stepped in these craft, so that they, and any early skin boats were probably rowed or paddled.

There are large gaps in the evidence for the evolution of the sewn planked boats (Later Bronze Age) into the clinker built, keeled and iron nailed boats of AD 500 and after, such as the Sutton Hoo and Graveney boats (Bruce-Mitford 1975, Fenwick 1978). A vital link is the Hjortspring boat found in a Danish bog in 1922. It is of clinker built construction, although the

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overlapping planks are stitched not nailed, and is built up from a slightly hollowed bottom plank that more or less constitutes a keel. Radiocarbon dating work continues (Rieck 1994), but there is an initial date of Cal. 350 - 300 BC (Appendix 11). Although equipped for rowing, there can be no doubt that with a mast stepped the Hjortspring boat would have sailed, as did its keeled successors and possibly its progenitors and contemporaries.

In the Late Iron Age, sturdy sailing craft became the means of trade in the Channel and Bay of Biscay. No remains of these vessels have been found to date, but Julius Caesar describes the ships of the Veneti as high at bows and stem, with a flat bottom, constructed of heavy oak timbers and having iron anchor chains and leather sails. They probably equate to the Ponto of the Gauls (Johnstone 1980, 87). From their description and a mosaic illustration these craft seem, other than in constructional detail, to have been very similar to the Medieval Cog.

To summarise, from the end of the Late Neolithic to the Late Bronze Age, c. 2000 - 700 BC, craft employed in cross-Channel communication are likely to have been skin or sewn planked boats propelled by paddles. There is no evidence that the sewn planked boats mounted masts, but if they did their shallow flat-bottomed hulls would have confined them to down wind sailing. This would also be the case with skin boats, as any attempt at cross-wind sailing such craft would have made progress, sideways downwind! The period from the end of the Late Bronze Age to the Late Iron Age saw the development of clinker built keeled hulls of V-section, with an increasing potential for cross wind sailing, or even tacking into the wind at up to 10° (Baykowski 1994, Gifford & Gifford 1996). Archaeological data on such craft is currently however so sparse that the progression and chronology of development has only one marker, the possibly anachronistic Hjortspring boat. Finally, by and after 100 BC practical sail only trading vessels had appeared that were capable of voyages between Brittany and south-west Britain and Ireland (McGrail 1993). The developing seafaring qualities of the various craft described above are shown in diagrammatic form in Fig. 9.1.

9.3. The origins development and nature of the North Sea and English Channel

The North Sea and English Channel are parts of the European continental shelf, and except for the Norwegian Deep are relatively shallow, varying in depth between 50 and 150 m. in the North Sea and 25 to 120 m. down the mid-Channel line (Admiralty charts). In geological terms both areas have been subject to great general and localised changes during and since the Pleistocene, the result of tectonic and isostatic effects. For the purposes of this study it is sufficient to say that by ten thousand years ago the main eustatic sea level rise had created North Sea and Channel

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shorelines spatially similar to those of today. A subsequent rise in sea level in the order of 28 m. (Devoy 1979) inundated many areas including the Wantsum Channel (Chapter 8) some of which have been reclaimed by alluvial deposition and the hand of man.

The two bodies of water have quite different tide zones and patterns of tidal currents. The Channel tidal system is influenced by the ocean current of the Gulf Stream. This, as it sweeps north-east, blends into the 'North Atlantic Drift' with some water veering south into the English Channel and Bay of Biscay¹. It is still discernible almost to the Dover Strait, so that pelagic fishes of the sub-tropical Atlantic are occasional visitors such as the Swordfish (*Xiphias gladius*) and the Blue Shark (*Carcharias glaucus*) and vegetable matter of Caribbean origin comes ashore (writer's own observations and long held local knowledge). The prevailing Channel winds are the Westerlies which bring a constant passage of depressions causing frequent gales and local sudden variations in wind direction. The North Sea is entered by the North Atlantic Current and its tidal system conjoins with that of the North Atlantic. While throughout the summer months the Westerlies prevail, in winter the North Sea winds and weather often becomes that of northern Europe with depressions from Scandinavia and northern Russia bringing bitterly cold and powerful easterly gales.

The area of sea that is significant to this study is that east of a line from the mouth of the Seine to Beachy Head, and south of a line Orford Ness to Walcheren, (Fig. 9.1). There the tidal systems of the two sea areas come into opposition at the Dover Strait. This results in two hour periods of slack at high and low water in the Strait as the two systems contend. During the making and falling tides tidal currents set and reverse, their directions and velocities being different south of the Dover Strait, and north of it in the Thames Estuary and on the coast of north-east France and Belgium. The tidal current pattern for each of the three areas based on Admiralty data (Channel Pilot 1997) is summarised below, with the velocity of the current converted from knots to kilometres per hour. The figures for both rising and falling tides are those of three hours before and three hours after high water.

Table 9.1: The North Sea - Thames - Dover Strait Tidal System

The Dover Strait: Thanet and the Kent coast, and Cap Gris Nez to Le Havre

The making tide runs southward down Channel until about two hours before high water when an area of slack water occurs in the Strait until one hour before high water when the tidal flow shifts to the north.

On the French coast, inshore:	neap tide 2.7	spring tide 5.0
off-shore:	neap tide 2.6	spring tide 4.8

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On the Kent coast, inshore:	neap tide 1.5	spring tide 2.7
off-shore:	neap tide 3.3	spring tide 5.9

Falling tides run north from high water until about five hours after when an area of slack water develops between the Strait and North Foreland, a southward flow commencing at low water.

On the French coast, inshore:	neap tide 0.7	spring tide 1.5
off-shore:	neap tide 2.6	spring tide 4.8

On the Kent coast, inshore:	neap tide 1.3	spring tide 2.2
off-shore:	neap tide 1.3	spring tide 2.2

Cap Gris Nez to the Walcheren

The making tide runs southward until one hour before high water.

inshore:	neap tide 1.6	spring tide 3.1
off-shore:	neap tide 1.3	spring tide 2.4

Falling tides run northward until five hours after high water

inshore:	neap tide 1.5	spring tide 2.8
off-shore:	neap tide 1.7	spring tide 2.9

The lower Thames Estuary, south shore Foreness Point to Sheppey

The making tide runs westward up Thames until one hour before high water when there is a slack.

inshore:	neap tide 1.7	spring tide 2.2
off-shore:	neap tide 2.6	spring tide 3.3

Falling tides run eastward until five hours after high water when there is a slack

inshore:	neap tide 1.8	spring tide 2.6
off-shore:	neap tide 2.7	spring tide 4.4

Important features of the sea area are numerous sandbanks and shoals, which have local effects on the force and set of tidal currents, Fig 9.1. Some of them, the Goodwins for example, are very large and in the days before radar watch-keeping and modern navigational aids they presented hazards to shipping. It has been estimated (Larne 1995) that since Tudor times the Goodwins alone have destroyed eight thousand ships with the loss of fifty thousand lives. Most of the shoals tend to increase or decrease in size according to no discernible pattern, and are mobile, so that the more dangerously placed are subject to annual survey.

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9.4. Cross-Channel navigation in Prehistory and the navigational advantages of the Wantsum Channel

There is no evidence to suggest that the conditions of prevailing winds and tidal currents in the English Channel and North Sea as described in the last section were markedly different in prehistory from those found today (McGrail 1983, 1987). An imponderable is the effect on tidal currents that the Wantsum Channel may have had when fully open, but these would necessarily be localised (Chapter 8).

Evidence for the evolution of sea going craft described in Section 9.1 suggests that until efficient sailing craft were developed in the mid - late Iron Age, cross Channel traffic would have been carried out by means of sewn planked boats and, possibly, skin boats. These vessels would have been propelled by oars or paddles, and while it is possible that some carried a mast and sail, their hull shape and displacement would have meant that they were strictly down-wind sailors. How could such craft cope with the sea conditions? Their size and freeboard would allow safe navigation through much of the year if the prehistoric skippers had enough weather lore to predict windows of calm, but seaworthiness and making progress at sea are different matters. It has been estimated (Wright 1994) that a planked boat of the North Ferriby type with eighteen paddlers could achieve a calm water dash performance of six knots (11 km per hour) for perhaps half an hour. Even without a choppy sea the endurance of the paddlers on a Channel crossing taking up to ten hours would make for much slower progress. The estimated speed over 100 miles (161 km) for a sixteen oared Hebridean Berlinn, a much more sophisticated craft than those of prehistory has been given as about 2.5 knots or 4.6 km per hour (Coates 1994) not enough to make any headway in some Channel currents, so that unless the tidal currents were known and used to maximum advantage, the voyage would be impossible. A scheme that would allow 'tide assisted' crossings both ways is given later in this section. It has been submitted for critical comment by modern Channel seafarers who face something like the same problems in shepherding cross-channel swimmers, and has been adjudged viable².

Prehistoric seafaring in the Channel has been discussed elsewhere (McGrail 1983, 1993, 1994), and three cross Channel routes have been postulated (McGrail 1994, Fig. 20.1, 8 and 9). Of these one is similar to the France to Britain route outlined below, although 'straight line' and without taking tidal currents and the presence of the Wantsum Channel into consideration (route 8). The other two are long 'no sight of land' routes (9) between the Walcheren and Dover or North Foreland, Fig. 9.2. Experience in sailing reconstructions of the Sutton Hoo and Graveney boats (Gifford and Gifford 1996) suggests that if Iron Age sailing vessels of the Hjortspring boat type had similar sailing characteristics, routine navigation of above three routes would be quite

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possible. Lacking the compass and navigating by the sun, stars and tides etc., the longer routes would require considerable experience and good visibility. Since these new craft could easily sail across or slightly into the wind, an eventual landfall was inevitable however, even if far from the intended destination.

Not so for the earlier craft. A sewn plank boat crew who found themselves out of sight of land in the North Sea would know that they had to steer west towards the arc of the sun to make land, but could they do so against currents running north faster than they could row for twelve hours in the day? Route 8 the shortest Channel crossing would also be perilous for voyagers from France. The twelve hours between each low water would divide roughly equally as six hours of opposing tidal currents on the rise into which they could make no headway, followed by six hours of northern currents propelling them towards the wastes of the North Sea. The whole journey made by rowing straight into or at right angles to rates of drift that were often faster than their best speed. As an alternative the writer suggests that the following pilotage was that used by canny Channel skippers in the Bronze Age, see Fig. 9.2. It must be appreciated however, that these postulated courses are approximations, based on crude mean figures for the speed of tidal currents in what is a very complex tidal system. The detailed Admiralty estimates on which they are based can be found illustrated as a twenty-four hour series of plans in any modern nautical almanac for British waters.

Westbound, the French coast to Britain, Dover, Thanet and the Thames:

Stages 1 and 2: Arrive at the area of Cap Gris Nez from the Walcheren or Le Havre running along-shore with the tides and beach or anchor. The skipper of the trading vessel would then have to give thought to several factors, the state of the tides between spring and neap, and how the times of high and low water related to daylight, the impending weather from high clouds and dusk and dawn skies, and the possible attitude of concerned deities or spirits. Whatever the latter, he would know that he needed high tide just after midnight, and the prospect of settled clear weather with gentle to moderate breezes.

Stage 3: Start out from shore about four hours after high water in a period of slack heading west with the cliffs of Cap Gris Nez on the port quarter. Continue on this heading assisted by south-west running tidal currents for five hours (four hours before high water) when the Shakespeare Cliffs at Dover (180 m. OD) should be in view to port on the weather bow. Turn the bows to the north and paddle towards the coast of Kent keeping the Shakespeare Cliff on the weather bow and assisted by the north east running currents that have just commenced. Landfall at Dover valley and the mouth of the Dour should be made three hours later, about nine hours out from France in perfect conditions.

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Stage 4: If no landing is made at Dover the boat can continue running north-east inshore on a rising tide to reach the Ebbsfleet Peninsular in the Isle of Thanet after four hours, thirteen hours out from France. There will not be enough daylight left to negotiate the Wantsum, and in any case a strong tidal flow against the craft (see Chapter 8), so the crew beach or anchor overnight in one of the two Ebbsfleet havens. The passage of the Wantsum Channel, which may be complicated by variables such as shoals and the rate of flow of the Stour, is accomplished next day on a rising tide.

Stage 5: The ascent of the Thames Estuary and lower reaches of the Thames from north mouth of the Wantsum is carried out running close inshore on rising tides. It will not be risky, as after the first 8 km past Reculver the boat can be beached on a gently shelving shore if wind and sea get up.

Eastbound, the Thames, Thanet and Dover, to France, the Seine and Rhine

Stage 5, from the Thames to the Wantsum is made running inshore on falling tides, and the Wantsum is negotiated on a rising tide, waiting at Ebbsfleet for the next low water to run down inshore to Dover. Stage 6: Our skipper will now require a weather window coinciding with low water at dawn or soon after. The boat will then set out in the hour of low tide slack, heading east with Shakespeare Cliff on the starboard quarter in strong south running currents. Four to five hours out with Cap Gris Nez in view, two choices emerge. With cargo and/or passengers for the Rhine, the bows are brought north-east into the current on a course that will bring the craft inshore east of Calais after a crossing of about nine hours. Thence eastbound along the coast on falling tides. Stage: 7: If the intended destination is south to the Somme and Seine, the bows are turned south-east and the boat is paddled hard towards the coast keeping Cap Gris Nez on the weather bow. After six hours of the voyage it is high water, and strong north running currents commence, bending the boat's course eastward to come to anchor or a beach landing after a journey of eight hours. The reverse of Stage 1, southward down the coast is commenced four hours after high water. A variation of Stage 6 would allow a more adventurous skipper to make the eastbound crossing direct from Thanet to Calais. Such navigation would be attended by the two disadvantages of being a much longer stint of paddling, and of there being a long period when neither shore was visible. The heights of Cap Gris Nez can be seen from Thanet's cliffs in clear weather, but not from sea level, and Thanet's highest points at 55 m. would soon go below the horizon. There would therefore be a period of perhaps nine hours, when unless Dover's heights could be glimpsed, the boat crew would have no point of reference.

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The sailing routes of the later Iron Age

With craft able to sail across the wind and tack up to 5° into it, Route 8 a straight crossing of the Channel would be possible quite often. Frequently however, the idealised straight runs of Routes 8 and 9a and 9b would be rendered vastly more complicated and protracted by unfavourable or shifting winds. Nevertheless, the voyages could be made, and by the time these craft had been perfected, say 100 BC, no sailing skipper worth the name would take his vessel out of the off-shore winds to detour through the Wantsum Channel with its complex tidal system when he could simply weather the North Foreland. Thereafter, the Wantsum's only relevance would have been as a haven, or mercantile as in giving access to inland Kent via the Stour and to entrepôts on the Thanet shore.

9.5. Discussion; who were the cross-Channel seafarers?

The following discussion attempts a reconstruction of a prehistoric seafaring community conducting cross-Channel trade, their origins, life style, and the socio-economic structures within which they would have existed. The initial framework for reconstruction is cognitive, but thereafter a processual approach is adopted, which assumes that the thought processes of the seafarers, accepting the cast imposed by their religious and symbolic cultural matrix, would be not unlike those of modern humanity. While their mind set may have been profoundly influenced by beliefs and attendant ritual that modern man would find incomprehensible, their response to external real-world stimuli was pragmatic, simultaneously adapting their outlook, material and spiritual, to accommodate new or changing realities. This is to come down on the side of a philosophical divide shared, to quote Colin Renfrew, with: "those thinkers who, with Darwin and Marx, or with Popper and Gellner, or in the archaeological world with Binford and Clarke, are concerned to situate human individuals and societies within the material world." (Renfrew & Zubrow 1994, 4).

History demonstrates inextricable links between economics, politics and religion within societies, with ecological / economic factors determinate as to stasis or change, and human actions remarkably consistent in their materialist practicality, whatever form their society took. Since the demarcation between prehistoric and historically recorded societies is simply an arbitrary 'commencement of data' bookmark in the pages of time, the writer suggests that prehistoric societies did not differ radically in the foregoing respects, so that inferences drawn from historic and anthropological parallels are worthy of consideration.

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The origins of cross Channel traffic will always be a matter of speculation (Cunliffe 1993, 37) but it seems unlikely that it started as an empirical experiment motivated by the glimpse of white cliffs on the horizon. Even less so from an ancient tradition of a land bridge. It may have commenced in the Mesolithic with occasional meetings between groups of hunter gatherers engaged in fishing for deep water species. Such activity and its possible connection with exchange has been discussed in relation to the islands off the Irish and Scottish coasts (Movius 1940, Clark 1952). Today there exists in the area of the Dover Strait large shoals such as the Goodwins and Brake Sands that emerge dry at low water. While they may not have existed in the Mesolithic, with much lower sea levels there may have been numerous equivalent banks and possibly islands. The modern shoals hold colonies of seals and the channels around them are home to deep water food fishes, so that any such ancient counterparts would have been most attractive and worth the risks involved in reaching them. Chance meetings between groups would allow the interchange of information and low level exchange with occasional visits to a foreign shore by crews prevented from returning home by worsening weather or impending nightfall. From this it is only a step to cross Channel navigation, shoal to shoal, with trade and communication the object. With this established, the passage into Britain of migrant agriculturists with seed and young domestic animals would present no problem.

As the 'stepping stone' shoals gradually disappeared with rising sea levels, maintaining a link across a widening Channel would require an ever greater command of seamanship, weather lore, and knowledge of sea conditions, and the vessels employed would have to be of enlarged and improved design. The two routes set out in the last section are enormously simplified illustrations of a method. Actual practice would call for a profound knowledge of a very complex system of tidal currents subject to change during a lunar cycle, and of how navigation assisted by these currents would be effected by wind speed and direction, or conditions of waves or swell. Various kinds of emergency could arise from deteriorating conditions of visibility or weather, or physical accident, and a skipper would have to know how to cope with them from experience or oral traditions. If committed to memory, depths of water and types of ground found by taking soundings might give a skipper some idea of his location in thick fog. Landmarks and memorised bearings on them would allow avoidance of inshore shoals and reefs. Frake (1994, 127) has observed that although medieval mariners in the north sea knew of the compass, they did not use it. Their navigation consisted of conceptualising and calculating time and direction from solar and stellar sightings, 'they carry their art all in their heads'. The Micronesian voyagers used even more refined adaptations of this technique, learning a 'star compass' that allowed them to make island landfalls over thousands of miles (Frake 1994, 123-5). In the English Channel such overall seamanship could only be acquired by a long apprenticeship in a hard and dangerous occupation,

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so that the skippers, their sons or apprentices, and more experienced crew men would hardly continue in it unless extremely motivated. to quote Frake:

"Humans are not simply maximally (or minimally) efficient ecological adapters. Nor are they simply rational (or irrational) calculating machines. They are social animals with aspirations of being accorded recognition and respect by their fellows, and social fears of being confronted with rejection and humiliation. These social motivations shape the design and use of even the most obviously "practical" of behaviours and artefacts. Because of this, the complexity of a representation does not necessarily mirror the complexity of the system of knowledge that underlies the performance of the task to which the representation pertains." (Frake 1994, 129)

Thus far in this discussion a cognitive approach has been advanced, considering the overwhelming evidence for trade between Britain and the Continent during the Bronze Age, and in the Dover Strait area, the Dover boat remains, and the lost or jettisoned bronze cargo off Dover harbour (Stevens 1975, Muckleroy 1981). What follows is a speculative reconstruction of the sort of seafaring community that would be necessary to allow regular cross-Channel trade and exchange.

The daunting conditions for those attempting a Channel crossing in small paddled boats are observable today. It follows that to carry out the traffic a number of boat crew teams would be needed, each with the skills, experience and knowledge necessary to this hard and dangerous craft. It surely also follows that their dedication, however they themselves saw it, and however wrapped up in custom and/or religion, would be motivated by material gain and prestige in addition to wishing to enjoy the necessities and comforts of life throughout the year. Their season for voyaging coincided with that for growing and harvesting crops, so that they would be dependant for food staples during the winter months on others who had laboured when they were at sea.

Logically, travelling traders and exporters would pay the seafarers with a tithe on the goods carried. To be worth exporting such goods would be high prestige, high demand materials, and their transference to the seafarers associated 'home' land community would compensate it for the support demanded of it. While not impossible, it does not seem likely that seafarers possessed of the secrets of Channel and Wantsum Channel navigation would be content to be at the commercial mercy of other seafarers employed in bringing goods and passengers to the departure point along safe un-complicated river and coastal routes. It would a matter of natural

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self interest for the seafaring community taking the major risks to dominate the whole trading network and carry the trade goods from quay to quay.

There are no ethnographic parallels for such a prehistoric seafaring community, but what follows would seem a reasonable reconstruction. They would be a widely distributed group, although with principal concentration immediate to the Dover Strait, a community closely tied by blood relationships and the necessity of mutual support. Its members having a strong sense of group and individual identity as seafarers. It is perhaps not too fanciful to see such a group as belonging to an extended family of 'craft guild' type, where the daily risks and frequent losses of boats and crews would make comradeship and community loyalty essential. They may well have possessed a unique assortment of paddling chants and songs having practical purposes such as telling time spent and progress made at sea, or to commit weather lore rhymes to memory. Navigational methods for marking the passage of time by solar and stellar sightings, and direction from swell, tide and current, formed cognitive systems employed by Micronesian and medieval European seafarers (Frake 1994).

Without close ethnographic parallels only very rough anachronistic comparisons are possible, but nevertheless worth consideration. Ramsgate's nineteenth and early twentieth century fishing community constituted the sixth greatest fishing fleet in Britain (Ramsgate Royal Harbour archives). Their lifestyle and religious beliefs are well documented³, and some of the last generation of seamen were known to the writer. If less so than when plied by the sailors of the Bronze Age, they still found the North Sea and Dover Strait waters extremely hazardous. By way of illustration, the writer's maternal grandmother was one of thirteen children, of whom eight were at one time or another lost at sea on the Ramsgate fishing smacks. Although the smacks were very sea worthy, economic imperatives dictated that the fishing went on through the winter, and often far from shore, so that such loss was inevitable even among those superbly skilful sailors. Their collective stance in the face of this annual carnage was one of deep religious conviction coupled oddly with superstitions, a series of taboos, and a profound fatalism⁴. In this they were typical of British fishing communities in the era. These traits may of course have been peculiar to post-reformation non-conformist tradition in the greater social context of nineteenth century capitalism. As a processual argument, they might also form the model psychological response for any community forced by tradition and inheritance into the pursuit of a phenomenally high risk occupation.

A prehistoric seafaring community whose social and economic foundation was cross Channel navigation could not exist independently. It would need the support and protection of a larger land based community who would derive benefits from the symbiotic relationship gained by providing the seafarers with a home base. That entity then constituting a 'Gateway

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Community'. It would not be in the interest of the seafarers to align themselves with more than one such community, as thus divided they would be open to competitive exploitation. The mutual advantages to be gained, physical and non-material, from this relationship are set out in Fig. 9.3.

A principal requirement of the seafarers would be protection against theft, enslavement and mistreatment, afforded by the authority of the Gateway Community. Any such acts, though committed hundreds of miles from the home base, could be punished by simply cutting out the transgressors perhaps also their neighbours, from the trading chain. To provide this kind of protection in the long term the Gateway Community would have to be known to the furthest communities on the trading chain as having this ability. It would also help greatly if the community had a neutral role, or had such a role conferred on it by its situation, as say, an off-shore island⁵. Chapters 3, 4, and 5 in this study establish that the Isle of Thanet holds concentrations of round barrows, settlement sites, bronze hoards, and 'prestige' imports, and that these concentrations are out of proportion to the Island's area compared with mainland Kent. Prehistoric Thanet possessed several natural harbours such as Ebbsfleet and Sarre. Control of the passage of the Wantsum, a vital stage in trade between south-east Britain and northern France and the Low Countries, would not have been difficult for a Thanet community, especially bearing in mind the need for pilotage of the Wantsum and landings while waiting for tides. The Isle of Thanet fulfills all the requirements for a Gateway Community with mastery of cross-Channel trade as its power base, and no other area on the trade route shares such advantages or offers such evidence.

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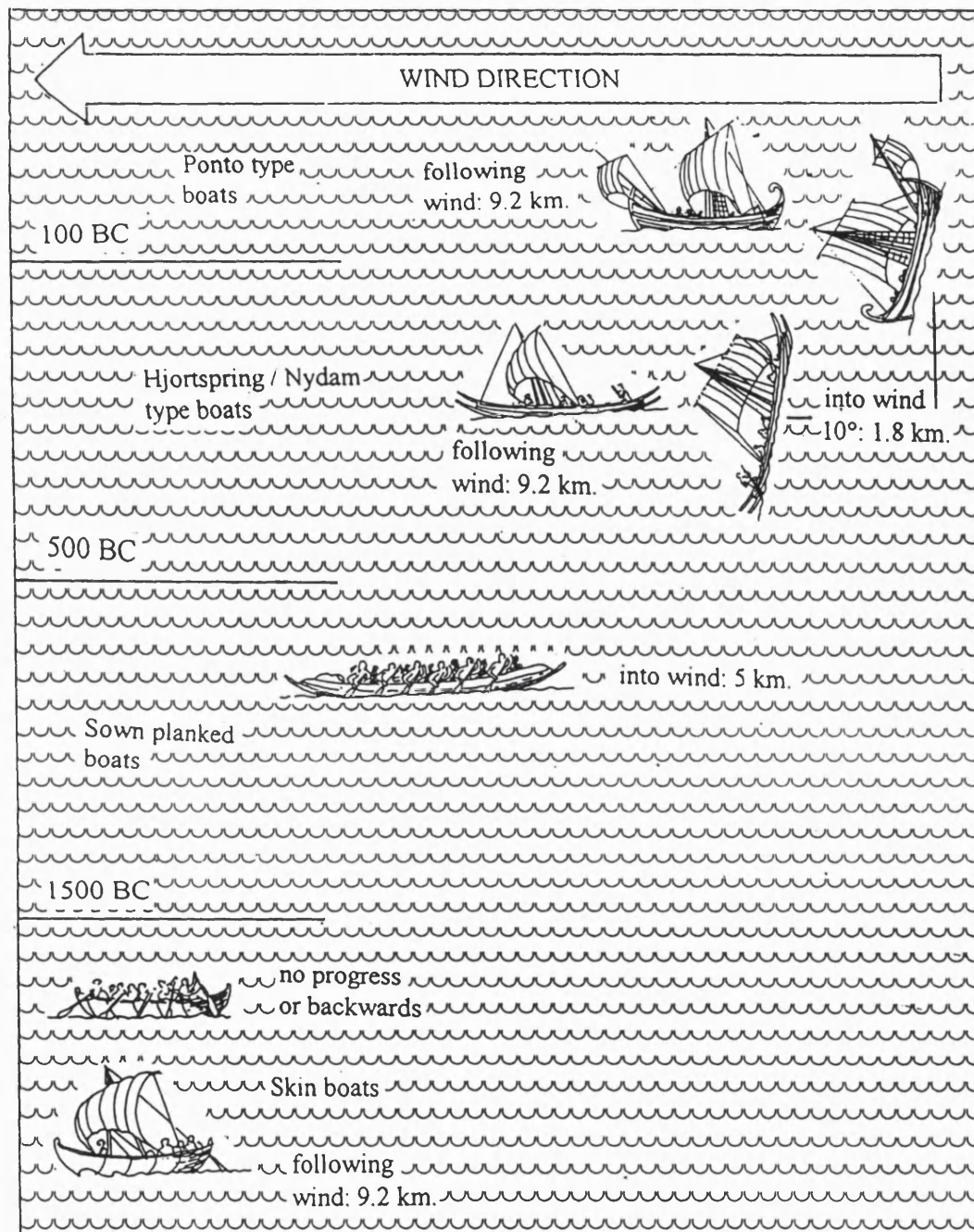


Fig. 9. 1. THE PERFORMANCE AND SAILING QUALITIES OF VARIOUS TYPES OF PREHISTORIC SEAGOING CRAFT

Rates of progress are given in kilometres per hour and without the effect of tidal current. Rafts and simple dugout canoes are omitted as more or less incapable of deliberate navigation in Channel conditions

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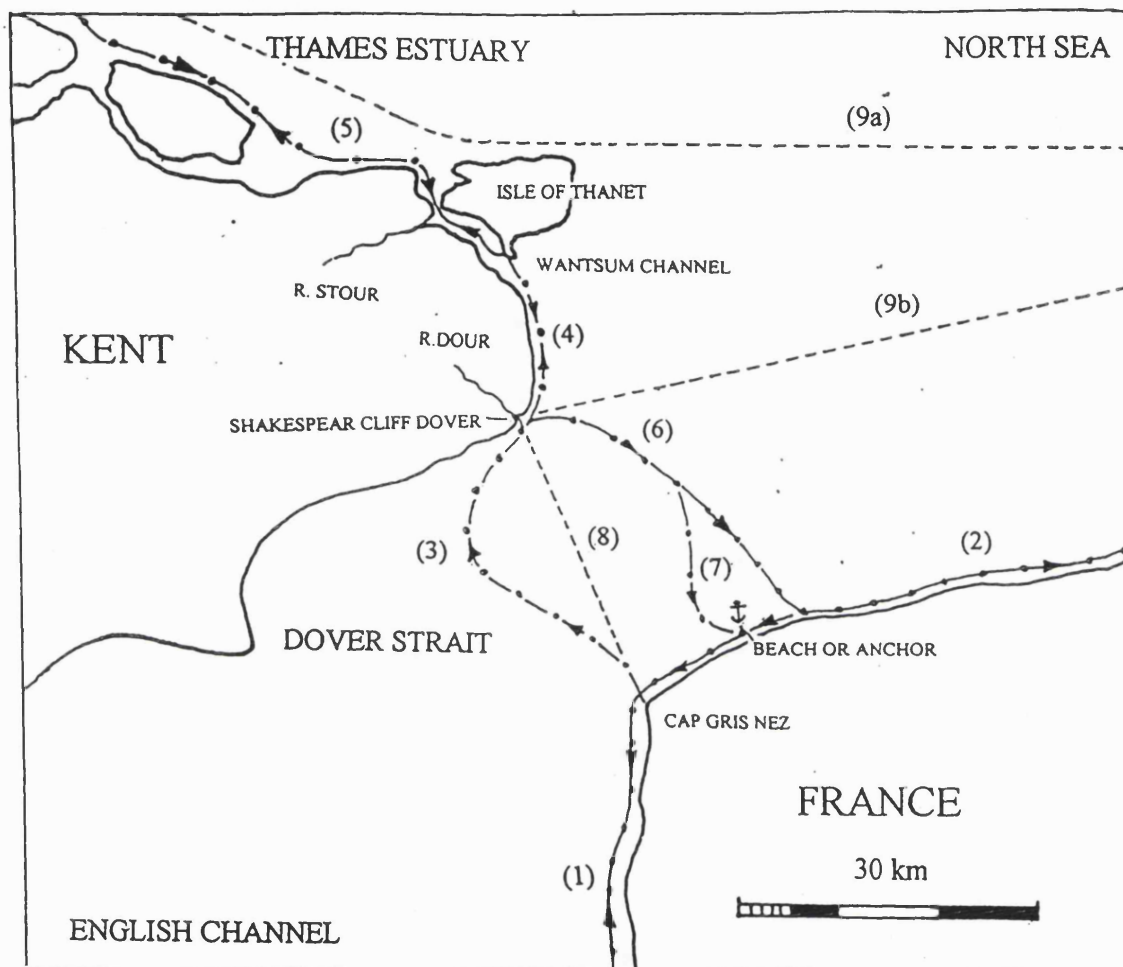


Fig. 9.2. POSSIBLE PREHISTORIC CROSS CHANNEL SEA ROUTES

Stages 1 to 7: Bronze Age and Early Iron Age, dots (---) indicate one hour of progress.

Stages 8 and 9a,b, (after McGrail 1993): Later Iron Age sailing routes.

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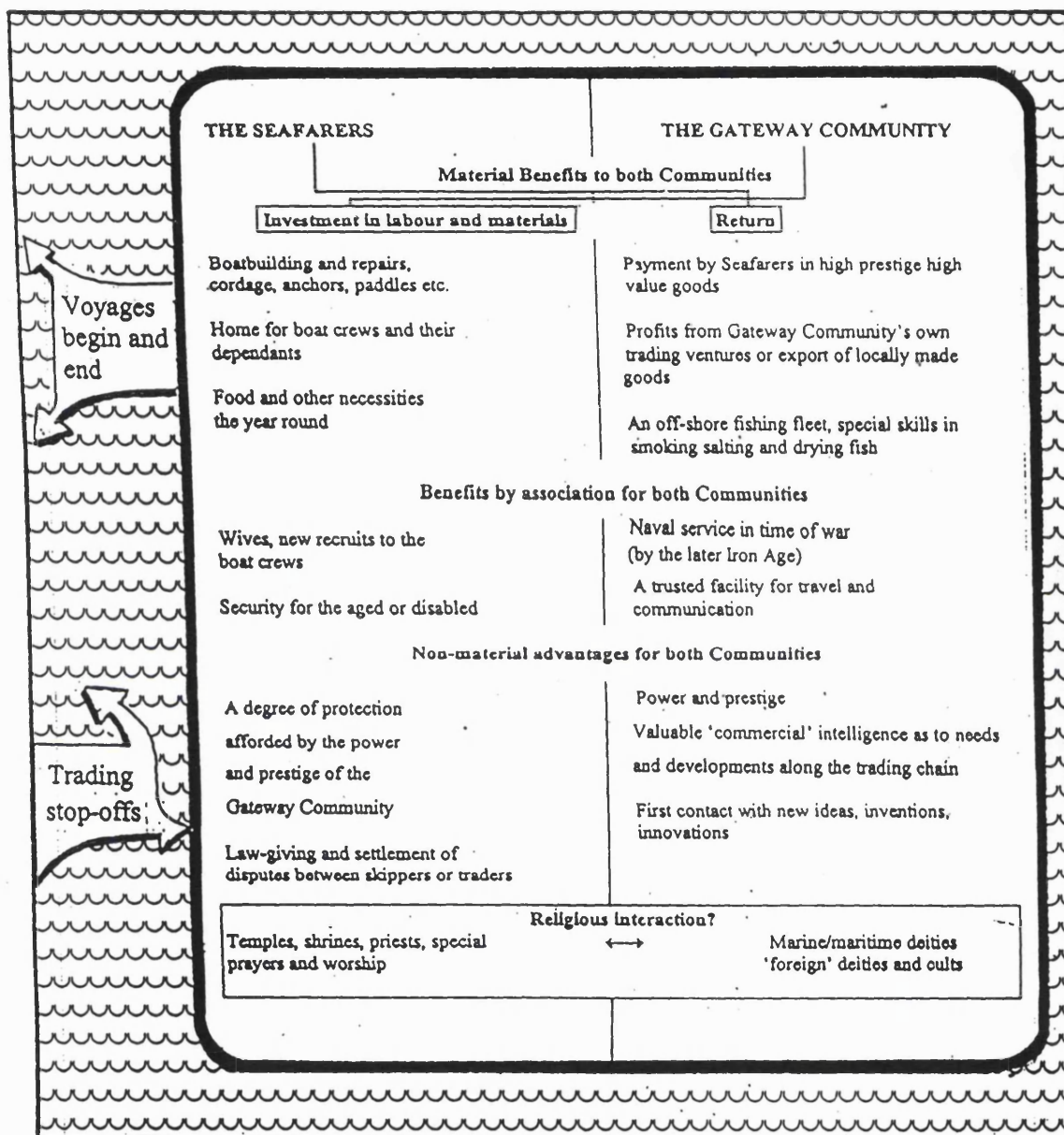


Fig. 9.3. A MODEL FOR THE RELATIONSHIP BETWEEN A GATEWAY COMMUNITY AND A SEAFARING AND TRADING SUB-COMMUNITY OR SEPARATE SEAFARING ENTITY

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CHAPTER 10. AN EAST KENT CULTURAL FOCUS; ITS CHRONOLOGICAL AND PHYSICAL BOUNDARIES AND APPARENT CENTRE, TRADING CONNECTIONS AND AFFINITIES

10.1. The chronology of the Cultural Focus

As listed and discussed in Chapter 5, the evidence available to date for Neolithic settlement in Kent is so sparse as to largely disallow conclusions as to its distribution. All that can be said, generally, is that the known distribution appears to favour the chalk lands of the North Downs, encompassing the Sutton Wedge area and Thanet. Thereafter, in the Early Bronze Age, a wealth of physical evidence burgeons in the same area. The latter mainly takes the form of an abundance of round barrows, suggesting a relatively high level of population. Although few identifiable settlement sites have so far been encountered, (Chapter 5.1 and Appendix 5.2), the refuse and debris of occupation is much more widespread as shown in Chapter 7.2. In terms of finds and material remains, a very well defined focus emerges in north-east Kent after about 2000 BC.

Throughout most of the following two millennia this focus, as demonstrated by the distributions examined in Chapters 2, 3, 4, 5, and 7, far from diminishing, becomes increasingly palpable in a span of 1900 years: 2000 - 100 BC. The demise of the focus appears to have come about with almost dramatic suddenness. It is discussed in Chapter 9, and graphically demonstrated in Chapter 6 by the fall in numbers of coin finds after 75 BC. Advances in ship design had rendered a Wantsum Channel-based Gateway Community irrelevant by about 100 BC. Well before that date however, the more general north-east Kent focus and its people were submerged in the 'Belgic' cultural expansion in Kent east of the Medway.

10.2. The physical boundaries and apparent centre of the focus

Considered in combination, the distribution maps of settlement given in Chapter 5 easily define the boundaries of the general north-east Kent cultural focus. It consisted of sea-girt Thanet, and a wedge of land bounded to the east by English Channel, north and north-west by the Wantsum and Stour valley, and west by the valley of the Nail Bourne. Geologically and geographically, the cultural evidence is contained within the chalk rise of the North Downs. To the north and west of this, to the Thames, and on into Sussex and Surrey there is, archaeologically speaking, almost a void. Prehistoric remains and finds for the whole area are mostly scattered along the valley of the Medway and its tributaries, and, for each of the distributions examined, represent a small fraction

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of the data. The nearest comparable concentration to the north-east Kent focus is to be found north of the Thames in Essex.

If the boundaries of the focus are well defined, the location of its centre is a different matter. Within the area, the various spatial/chronological distribution maps of remains and artefacts: round barrows, settlements, bronzes, pottery, coins, present a picture that is collectively beyond interpretation. A combination of such maps made up from overlaid transparencies simply blacks in the whole focus area, making it impossible to identify any central point. To interpret this data in terms of a central concentration it is necessary to adopt a mathematical/graphical approach. A number of methods have been described (Hodder and Orton 1976, Orton 1980) as useful in the interpretation of distributions, be they of artefacts within a transect, or objects traded across a continent. Among the techniques of locational analysis are: Nearest Neighbour Analysis, Network Analysis, Rank-Size Rule, and Trend Surface Analysis using Grid Generalisation.

The last mentioned method offers the most promise for the purpose of this work, as it makes a simple visual statement and can be compiled without specialist computer software. Usually, Trend Surface Analysis is employed to produce a 'contour map' of the density of a single type of artefact. It is based on a grid adapted from an on-site plot to show the number of artefacts in each quadrat rather than their position. Since these values would not themselves allow contours to be drawn, they are 'smoothed' by averaging the values in four adjacent squares and putting the result at the point where they meet, allowing a smooth contour map to be drawn. This is the grid generalisation technique, the method and possible pitfalls of which are succinctly given by Orton (Orton 1980, 124-27).

This context however, required the visual representation, simultaneously, of several data populations, a radical but surely valid modification of the technique. The selected populations are: settlement sites, round barrows, bronze hoards and single bronzes, these distributions being shown graphically as: Round barrows (all periods), Chapter 3, Fig. 3.3, bronzes (all periods), Chapter 4, Fig. 4.12, and settlement sites (all periods), Chapter 5, Fig. 5.8.

The question of numerical weighting enters calculations at this point. How relatively indicative of settlement and trade are the latter classes of evidence? Obviously within one square kilometre of a gridded map the presence of a settlement with a number of huts is more significant than a single-hut farmstead. A large bronze hoard, say over ten items, might be a 'smith's hoard', associated with on-site metal working in a major settlement. Smaller hoards could be votive deposits, and single bronzes lost within a settlement, or in transit. The following arbitrary values given in multiples of 5 were adopted:

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Settlement sites (all prehistoric periods): small enclosure = 10, large enclosure - multi-period = 20.

Round barrows: Cemeteries (as defined in Chapter 3.1) = 10, groups = 5.

Bronzes (all prehistoric periods): Single finds = 5, hoards = 10, (> 20 objects = 20).

Method

- i) A rectangular block of O.S. one kilometre grid squares was selected, measuring 30 km. by 38 km. This block constituting eastings: TR 10 - 40 and northings TR 35 - 73, enclosed the whole Thanet and north-east Kent area, and contained the data populations of the focus. The numerical value (as defined above) of sites or finds within each square was calculated and entered.
- ii) To facilitate construction of a contour map the grid was then enlarged to represent quadrats of four square kilometres, having a combined numerical value. This data is given as a table in Appendix 10. The values were then smoothed using the grid generalisation method described above and the revised values entered.
- iii) A contour map was then drawn at numerical 'heights' of 0 - 10, 11 - 20, 21 - 30, and 31 - 40+. The result is given below as Fig. 10.1, in which the contours are shaded increasingly dark as the values rise. A modern plan of the Thanet - east Kent shoreline has also been superimposed, with height shading trimmed off along the line.

The trend surface analysis contour map

On examination of this two anomalies will be noticed. Firstly, that the entire western column and bottom row of quadrats are missing. This is because it is impossible to average for the points at the edge of the map. Secondly, that the area of the former Wantsum Channel appears as low value shading, rather than as a band of zero values. Grid generalisation smoothing creates this effect by spreading the high value coastal plain data from both shores.

The contour map that has emerged from data must be viewed with some caution bearing in mind Orton's strictures, specifically, that quadrat size could be manipulated to create a desired effect. In this case however, nothing that the map demonstrates is out of keeping with the burden of evidence from the earlier chapters. The well established 'hot spots' of concentrated occupation appear at Canterbury and Folkestone, and about the village of Sutton. Most striking however, is the accentuation of Thanet, with a huge area of black shading indicating maximum height value extending east-west across the island. If the contour map and its method have validity, this dark shape is the massive concentration of data representing population with time that was generated by the Thanet Gateway Community.

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10.3. The extent of trading contacts social affinities with far communities

Trading contacts

This section takes the form of an illustrative summary, since a full exploration and discussion of the Thanet evidence for extensive trading contacts would: a) If comprehensive, be inordinately long, and b) Depend heavily on the published work of others. In the latter context, the writer has in mind Brendan O'Connor's study of Bronze Age cross-Channel trade with special reference to the metalwork (O'Connor 1980), from which conclusions have been drawn in Chapter 4.5. The many Thanet bronzes discovered since 1980 are a mixture of British and Continental types and traditions representing typological points of origin all over lowland Britain, Brittany, Northern France and the Low Countries. The material reinforces the complex two-way interaction charted by O'Connor, and also his comments that there was much closer contact between south-eastern England (Thames Valley and South Coast) and north-western France, than between the south-east and the rest of lowland Britain (O'Connor 1980, 92, 225).

British trade:

The wealth of bronze hoards and single bronzes apart, the following finds serves as evidence of long distance trade throughout the British Isles and western Europe:

- 1) A necklace of 217 minute jet beads and a copper alloy bracelet were found in a Neolithic/Early Bronze Age flat grave at Monkton, Thanet, in 1994 (*Arch. Cant. CXVI*, 305, unsigned). The beads are currently presumed to be of Whitby jet. Parallels for the bracelet and another found nearby are very rare, but occur in a smith's hoard found at Wageningen, Gelderland in the Netherlands, (Playte 1889).
- 2) A large flanged axe decorated heavily with cast-in herring bone patterns was dug up at Ramsgate in 1958, and was examined by the British Museum, who at that time described it as Irish (letter to owner). It was returned to the finder and cannot now be located. This find is considered important (Needham 1996).
- 3) At about the same time as the above discovery, a polished stone mace head of 'Wessex Culture' type was found at Royal Parade, Ramsgate, and was examined at the British Museum (letter to finder, copy preserved at Ramsgate Public Library) The mace head cannot now be located. As described to the writer by the finder it resembled in form the mace head from the Bush Barrow, Wilsford G. 5 (Clarke 1985, 115).
- 4) Another find indicative of contact with Wessex and in particular reminiscent of rich Wessex burials is that of an accessory or 'incense' cup. This was found accompanying a cremation burial at the centre of Barrow 4, Lord of the Manor, Ramsgate (Perkins 1981).

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5) A quoit-headed pin was found during the excavation of the Deverel-Rimbury period enclosure at Dumpton, Broadstairs, in 1994. The thirteen or so previously recorded examples of these pins chiefly group in East Anglia, the possible origin, and the Somerset levels, (see Chapter 4.3. and Fig. 4.7).

6) A round barrow ditch excavated at Monkton in 1994 (see 1 above) yielded a 'Trevisker' cordoned urn originating on the Lizard peninsular, Cornwall, (see Chapter 7).

Since objects 3 and 4 above are broadly contemporary, and are unique finds in the south-east, they would seem to suggest that Thanet was an important staging post / stop-over in a 1500 km. coastal trade route.

Continental trade

7) The picardy pins and urn found at St. Lawrence College, Hollicondane, Ramsgate, in 1929 are well documented (Hawkes 1943) and are also dealt with in Appendix 5.2. (25). Local tradition puts the discovery spot of a grave furnished with penannular bracelets (Piggott 1949) as c. 500 m. to the south of the settlement remains from which the urn and pins were obtained. While O'Connor believes the bracelets to be of British origin, he does not discount the possibility of their being German (O'Connor *op. cit.* 82).

8) During road construction at Avenue Gardens, Cliftonville, in 1924, a cremation burial was discovered. It was contained in an urn (now lost) and was accompanied by a bronze fibula, Margate Museum No. 5608. The fibula, of 'boat brooch' type is of the Hallstatt period and similar to the products of the Villanovan culture of northern Italy.

9) A silver Celtic coin attributed to the Bellovaci or Suessiones tribes of northern Gaul was found during evaluation excavation at Ebbsfleet in 1991 (Wren 1992). This has been singled out for mention because it is rather unusual. Thanet has so far however yielded 41 imported Celtic coins, a number of them Armorican, (see Chapter 6 and Appendix 6.1).

Social affinities with far communities one British and two Continental

Three pieces of evidence offer themselves as indicating the physical presence in prehistoric Thanet of emigrants from far communities. The British example consists of a round barrow and burial group excavated by the writer at South Dumpton, Broadstairs, in 1994. So far, in the main, the ceramics from Thanet's Beaker burials fall into either the East Anglian or Wessex - Mid Rhine styles. While a beaker from the Dumpton barrow, though without decorative parallel, would also seem to fall within the latter style: Clarke's Wessex - Mid Rhine, Lanting & van der Waals (1972) Step 3 (Gibson 1996). This burial group is unlike any other that the writer knows of in southern England.

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- 10) The ditch of the South Dumpton barrow, (Fig. 10.2), is of a familiar local form, oval in plan, and cut in five joining segments. It is the burial pit complex within it that departs radically from local traditions. The sequence of events leading to the completion of the monument would seem to be as follows (all date estimates are calendar years BC at 65%):
- a) At some time about cal. 2135 BC (Appendix 11) the barrow ditch was cut, and three interlocking pits were cut at its centre. In one of these a crouched inhumation was laid, (Fig. 10.2, B.1).
 - b) A sequence of five adult crouched burials followed, B.1 - B.7 (B.4 was an infant buried apart) all of them more or less superimposed. The body of the first, B.2, overlaid a broken food vessel on the pit floor that might have been associated with either B.1 or B.2. These burials were interred in an upwards clockwise spiral, with each cadaver being rotated clockwise on its cranial - pelvic axis. Burial 3 about cal. 2040 BC (Appendix 11) and B.6 was associated with the beaker mentioned above. Another interesting phenomenon is that, with the exception of B.5, the uppermost burial, and B.4 the infant, the skull of each skeleton was missing.
 - c) After a span of about 160 years in about cal. 1965 BC (Appendix 11) the presumed final burial B.5 takes place. It is associated with a rim shard of rusticated beaker. Dr. A. Gibson (1996) suggests the possibility of a connection with the Netherlands 'Potbeker.' Finally, a mound or cairn of water rolled flints appears to have been raised over the pit complex.

While the writer knows of no comparanda in south-east England, good parallels for the South Dumpton burial group can be found in the barrow cemeteries of north-east Yorkshire (Smith 1994).

- 11) The penannular bracelets mentioned in 7) above may, as has been said of German origin. It is of particular interest therefore that they were deposited as grave goods. As O'Connor (ibid.) remarks, while such burials are common in north-western Germany, they are almost unknown in Britain and France.
- 12) Several Iron Age inhumations were excavated by the writer at North Foreland Hill, Kingsgate, Broadstairs, in 1989. The burials were extended in deep well-cut chalk graves orientated north-south, with the heads south. Grave 2 contained pot sherds from a carinated urn with incised decoration. According to Dr. I. Longworth this vessel is the closest that his British Museum department have seen to the Early Iron Age pottery of the Marne district of France.
- The graves had been superimposed on an Early Bronze Age round barrow having crouched burials and a deposited miniature cordoned urn. Since excavation had to be limited to the barrow, on which a house was built, they may represent part of a larger cemetery.

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10.4. Discussion and a summary

In this chapter a mathematical - graphical technique to locate has been employed to define the centre of an east Kent focus. It sought to show the ranked density of settlement evidence conveyed in shaded contours superimposed on the OS grid scheme for north-east Kent. What emerged from the latter application was a contour area of highest bracket numerical values situated within Thanet's Wantsum and southern Channel shoreline.

No clear 'epicentre' indicating a major enclosure for administration distribution and exchange became obvious, and for the general purpose of this study is unnecessary. Further 'refinement' of the Trend Surface Analysis technique in search of such an enclosure by altering transect size might, as Clive Orton warns, amount to manufacturing a desired answer. Island Thanet had then no 'Knossos,' unless a long term settlement of relative importance to the Thanet community awaits discovery. What seems more likely is that a number of central administrative enclosures flourished and declined in sequence, moving according to the interacting stimuli of sea level and climatic changes, cliff erosion, the availability of fresh water, defensibility, and sheltered beaching facilities for boats.

The evidence for long distance trade and social contacts, both British Isles and Continental, is sparse, albeit of good quality. Of the twelve examples listed above however, six were chance finds made over the last seventy years. The remaining six discoveries were all obtained by archaeological excavation, one in 1978 during a rescue excavation, and five since 1990 from large area excavation ahead of major developments. The impact of PPG 16 is clear to see. As the pace of urban development and its required infrastructure increases with a new funded accessibility for archaeologists, we can expect much more evidence of the Thanet Gateway Community and its far associations to emerge. The extent to which the whole picture of Thanet prehistory has been revised and reformed over the last decade (to 1994) is outlined in Chapter 12.

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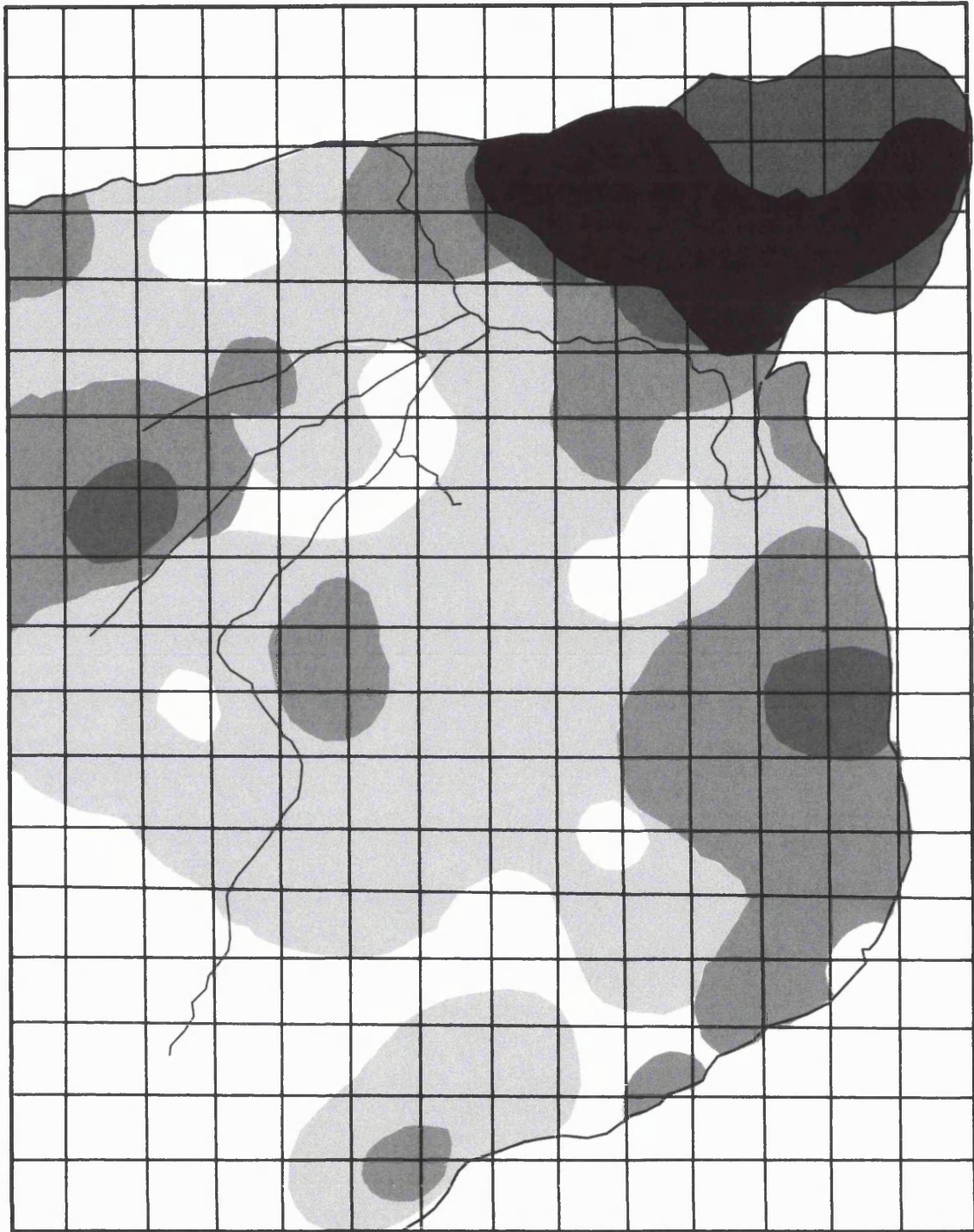


Fig. 10.1. A Trend Surface analysis 'contour map' of north-east Kent generated from numerical data by grid generalization. The contours show with increasing degrees of darkness the concentration of settlement sites, round barrows, and bronze finds.

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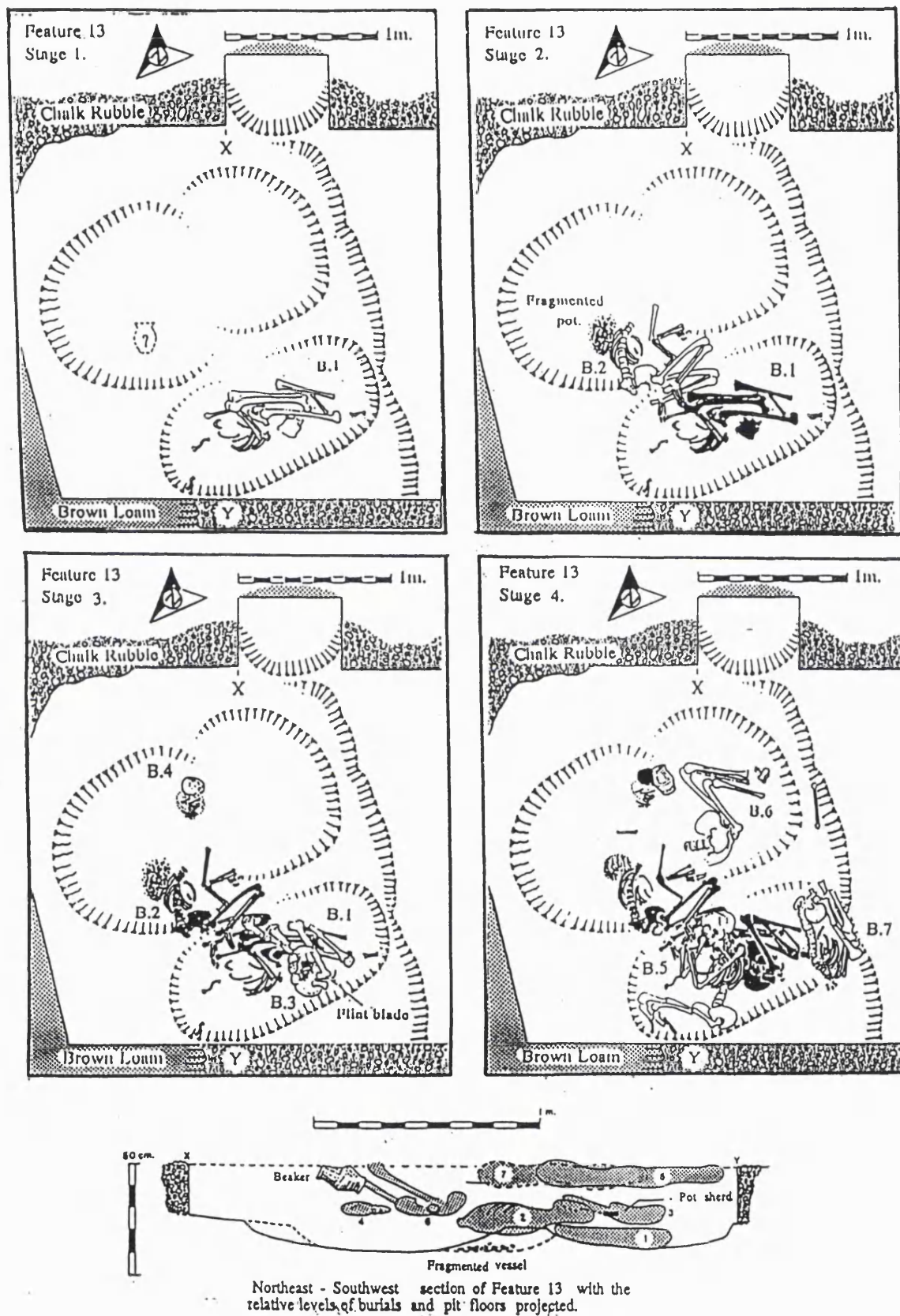


Fig. 10.3. The South Dumpton barrow burial group, plans of four phases and section at scales given

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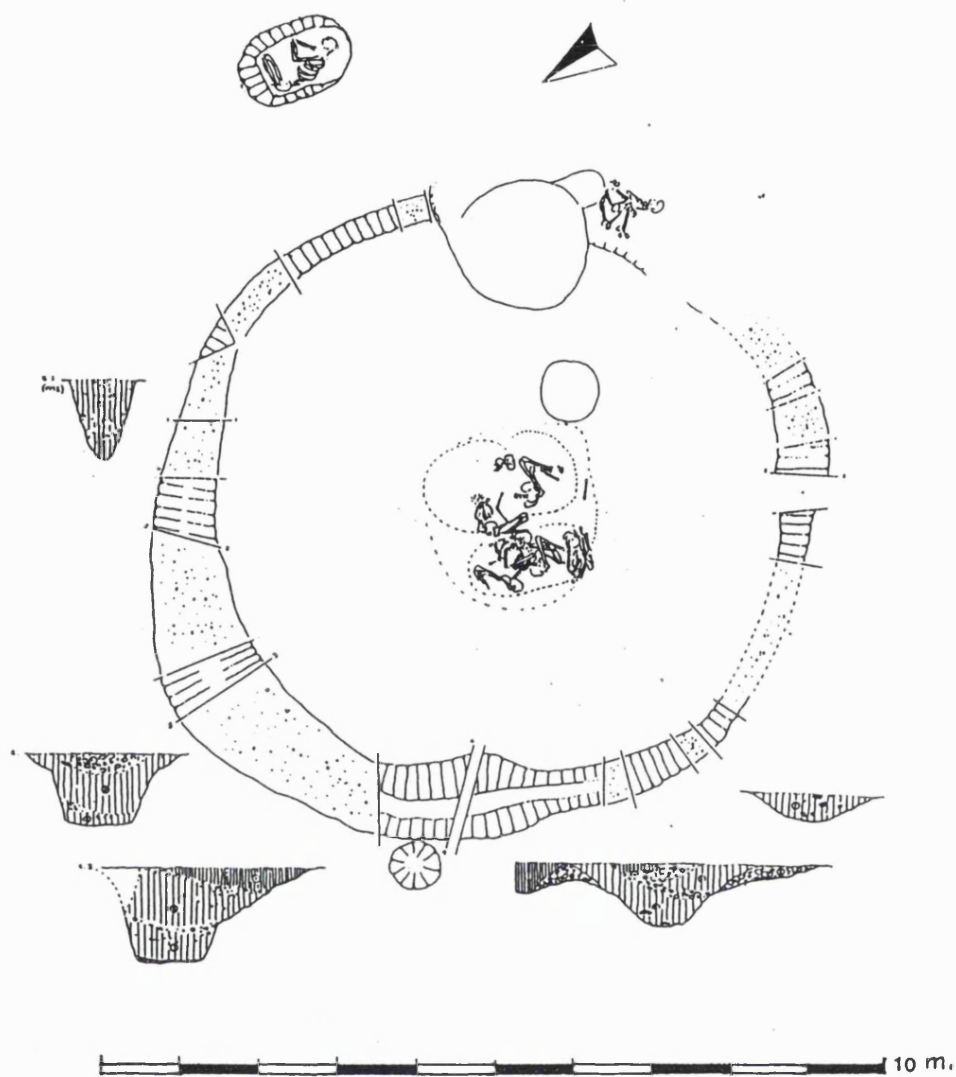


Fig. 10.2. The South Dumpton round barrow to scale as given.

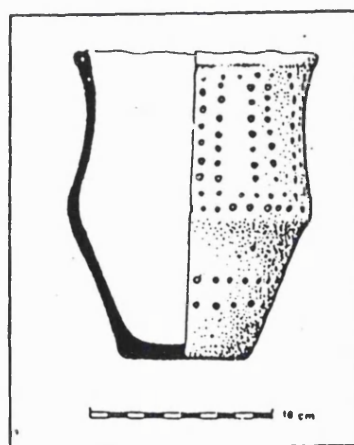


Fig. 10.4. The beaker from the South Dumpton barrow to scale as given.

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CHAPTER 11. GATEWAYS AND COMPARISONS; THE GATEWAY COMMUNITY IN ITS BRITISH AND EUROPEAN SETTING

11.1. The South-East in Prehistory; a regional setting for Thanet and East Kent

So far in this work, the prehistoric archaeology of Kent and more particularly of east Kent, has been considered somewhat in isolation. This section serves to redress that situation by summarising the archaeology of later prehistory in south-eastern England and its problems. Broadly, the south-east of England can be sub-divided into two areas, the South-Eastern and Eastern, each within rather ill-defined geological and topographical boundaries. Each had its own seaboard favouring mercantile links with different areas of the Continent, and had inland borders to different parts of Britain. Herein for the purposes of the work, the two areas are broadly considered in combination as the 'South East,' being treated separately only when major changes in socio-economic emphasis can be observed.

Without significant physical barriers between the two parts of the whole, trade exchange and internal movement would have tended to promote cultural homogeneity throughout the second millennium. While this was a broad influence, cultural divisions between the areas, and regions within the two areas, started to arise from early in the first millennium. They appear to have resulted from internal factors such as population pressure, and external stimuli in the form of exposure to continental trade, and, later in the first millennium, a level of migration as yet undetermined and subject to discussion.

The South-East Area and its boundaries

For the purposes of this work, this could be more widely described as the 'Wessex - South East' as it extends into an area more usually designated as 'Central-Southern England.' It incorporates the 'Wessex' of Somerset, Avon, Dorset, Wiltshire, Hampshire, and Berkshire, with the 'South-East' counties of Sussex and Surrey, extending eastward with the Weald into that part of Kent bounded by the North Downs.

The Eastern Area

As referred to herein the Eastern Area consists of Kent north and east of the Weald, the eastern Thames Valley, Essex, and the whole of East Anglia. It is bounded by the high Weald and Chilton ridge to north and west, and south and east by the North Sea and eastern English Channel. The inclusion of north-east Kent in this largely geographically defined entity depends on strong cultural evidence (Cunliffe 1982).

The South East during the second millennium, a brief summary

From about 2000 BC the whole South East enjoyed a degree of cultural homogeneity, indeed, what may be called 'Beaker Society' with its barrow burial rite elite and their symbols of

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power seems to have developed roughly in parallel throughout Britain and on the Continent. The similarities in metal working traditions, and in the styles of ceramics and ornament are such as to indicate continuous interchange. Trading links between the area and Europe are manifest, both south across the Channel to Brittany, and eastward across the Dover Strait to the Low Countries, the latter trade coming into an ascendancy after about 1700 BC (Cunliffe 1993, 127). While identified imports in elite graves such as amber and faience beads are high prestige goods, the wider spectrum of trade is illustrated by the discovery near Avebury of quern or whetstone fragments of Niedermendig Lava from the Rhineland (Cunliffe 1993, 125). Such finds apart, the archaeology of the period is dominated by its funerary rituals and monuments. Few domestic sites have been discovered in the South East, presumably owing to poor material survival factors.

Although barrow burials typical of the Early Bronze Age elite are found all over the South-East, for example in Thanet (Perkins 1990a), 'rich' burials such as those of the Bush Barrow and Upton Lovell (Piggott 1973) are concentrated on Salisbury Plain, principally on the tributaries of the Avon (Cunliffe 1993 Fig. 3.16). This distribution provides strong evidence that central Wessex was the focus of wealth and power within the South-East in the period 2000 - 1500 BC. An explanation for this might lie in the prestige and attraction to trade and exchange constituted by the construction and presence of the great monuments, Stonehenge, Avebury, Durrington Walls, and their smaller counterparts. To quote Barry Cunliffe:

"...it is difficult to resist the suggestion that it may have been the concentration and size of its great ceremonial monuments that drew people in."

(Cunliffe 1993, 128)

It might equally be the case that the great monuments were constructed in a naturally wealthy area of open easily tilled and fertile soils where an elite commanded surpluses sufficient to maintain a labour force constructing the great monuments. The Wessex concentration of rich graves was at one time interpreted as belonging to a 'Wessex Culture' a distant island outpost connected via Brittany to Mycenae. After being critically examined in the light of ¹⁴C dates (Renfrew 1968, Barfield 1991) the theory is now generally discounted. Whatever the reasons for the early ascendancy of Wessex, after about 1500 BC other regions of the South-East developed rapidly in competition.

Many problems exist in the archaeology of the second millennium, not least in interpreting social structure and explaining change. The period's most spectacular cultural phenomena, the great ceremonial monuments of Wessex, were 'lithicized' at the beginning of the millennium by vast displays of organised labour. Renfrew (1973) saw this as indicating the emergence of chiefdoms. Later studies have considered the nature of authority, ritual or traditional, the exchange, display and deposition of prestige goods, and the nature of group ritual activity (Bradley 1982, 1984, 1998; Richards 1984; Richards & Thomas 1984). It seems

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generally agreed however, that the interpretation of the enormously complex existing data for the period will continue to be fraught with difficulties.

The period 1500 to 1000 BC witnessed social and economic changes attributable to the progressive aggrandisement of the elites. It is marked by evidence of land division and the beginnings of highly organised mixed farming with the appearance of farmstead enclosures and larger settlements (Bradley 1991). Bronze tools come into common use, ousting flint almost entirely, and indigenous traditions of bronze casting appeared. A significant rise in population occurred, bringing large tracts of marginal land into cultivation.

The South East during the second millennium

The process described in the preceding paragraph continued and developed after 1000 BC. In the east, Bronze Age metal finds from Thames estuary area give distinctive importance to that region (Champion 1989). To the west, evidence of linear earthworks and enclosures on the South Downs indicates that stock raising was becoming increasingly important in the overall economy. It has been suggested (Bradley 1971) that the need of local populations to secure their livestock during times of unrest gave impetus to the period to hillfort construction after 600 BC. The western region was also developing trading links with Brittany and the Atlantic coast of Gaul via the Dorset ports, in particular Christchurch Harbour, where extensive occupation on Hengistbury Head (Cunliffe 1987) suggests the establishment of an important entrepot. Settlement in the coastal region of the Solent developed rapidly, as also in the valleys of the Stour and Avon, trading pathways into the Wessex hinterland.

It is at this point, half way into the first millennium BC that a profound regional dichotomy occurred in the South East. Thereafter, throughout the Iron Age, the Eastern Area diverges in cultural terms from the general Wessex - South Eastern Area. North-east Kent can be seen to have more in common with eastern England than the chalkland regions of southern England to the west. The late peripheral development of hillforts and enclosed sites, and important changes in the last century all align Kent with the region north of the Thames, the most important region of Britain before the conquest (Cunliffe 1982, 41. Champion, 1989, 37).

In Kent the cultural zone boundary can be defined by the presence of hill-forts, with Oldbury (first century BC) and west of the Medway, being the eastern-most. Cunliffe suggests that Oldbury may have functioned as a port-of-trade on the interface between the two different socio-economic zones (Cunliffe 1982, 45). Kent east of the Medway has few hill-forts, a paucity that it shares with Essex (Drury 1980).

During the Early and Later Bronze Ages, the different social groups of the South East have been generally accepted as undergoing an indigenous cultural development, subject only to the influences of trade and very limited immigration. However, with the commencement of

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British Iron Age at about 600 BC there came very rapid social, economic, and technological developments. These could be readily explained as resulting from external stimuli. From the emergence in Iron Age studies of the ABC system for dividing the British Iron Age into three discrete and chronologically overlapping cultures (Hawkes 1931 and 1978) it was assumed that these cultures owed much to Europe, not simply from widespread trade, but by waves of colonisation. Each of the cultures/periods being peopled by, to use words current at the time, 'colonists, adventurers, and invaders' whose presence profoundly transformed native society (Hawkes 1978).

Eventually the ABC scheme and invasion theory was challenged, and the alternative of indigenous development, trade, and migration offered as factors in the evolution of the British Iron Age (Hodson 1960; 1962; 1964. Cunliffe 1978). In the decade to 1991 about 700 books and papers on the Iron Age have been published (Cunliffe 1991, xi), and the common perception of Iron Age society has been undergoing critical review. While Neolithic and Early Bronze Age society with its ritual landscapes and monuments could only be viewed in a glass darkly, Later Bronze Age and Iron Age farmsteads, oppida, hillforts and field systems seemed to suggest a mind set not unlike that of pastoral ancestors within the historic record. Fresh interpretations of the evidence have called this paradigm into question however, and a number of archaeologists are moving towards a 'different Iron Age' (Hill 1989). Recent work on the disposal of rubbish within Iron Age settlements introduces ritual practice into the recording process, a move towards the 'Neolithisation' of Iron Age studies (Hill 1995). Other aspects of life within the Iron Age paradigm are currently subject to rethinking (Gwilt and Haselgrove *et al* 1997).

For most of the Iron Age and for most of Britain, current archaeological thought either rejects the various invasion hypotheses, or treats them with circumspection. The favoured picture now is of a very complex and dynamic society comprised of tribal entities evolving from regional cultural traditions, its art and technology influenced by trade and contact with Europe, but developing in parallel.

For the South East and Eastern regions, one hypothesis remains however that must be considered seriously, that of a Belgic invasion of the South East in about 150 BC. A chief plank in the evidence for this is historical: Caesar's often quoted comment that the coastal areas of Britain were inhabited by invaders from Belgium who crossed the Channel for plunder, but stayed as settlers, keeping their tribal names. Supporting evidence, originally considered strong, is that of the distributions, principally in Kent, Essex, and Hertfordshire, of ceramics in the Belgic Aylesford-Swarling tradition, and of Gallo-Belgic coins. Both distributions are now considered as post Caesarian (Birchall 1965, Kent 1978) and Kent rejects invasion as a factor in the distribution of the coinage in favour of 'the interaction of related political and economic events' (Kent 1981).

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Invasion and settlement on a more limited scale has however been postulated for the Solent region (Cunliffe 1984). Christchurch Harbour in the shelter of the high promontary had long been an important entrepot, conducting imports of Roman origin via Brittany into Wessex (Galliou 1984). In about 100 BC significant changes in settlement pattern and ceramic technology occur on the shores of the Solent, with the implication that Belgic settlers had arrived (Cunliffe 1984, 1993). After Caesar's suppression of the Breton tribes in 56 BC and his British campaign, trade with eastern Britain increased, and Hengistbury and the Dorset ports dwindled in importance leaving Wessex as an economic and cultural backwater.

11.2. The role and interaction of a postulated Thanet Gateway Community in south-east Britain, a discussion

The fortunes of a Thanet Gateway Community in its interaction with the South East region would have waxed and waned over the last two millennia of prehistory. In terms of its exploitation of trade to and from the continent, it would have been at times subject to competition, and at others unable to compete. For most of the period 2000 to 600 BC it is argued in Chapter 9 and later in this chapter (11.9) that the Dover Strait crossing and Wantsum navigation was the only viable route for trade to and from the continent. Viable yes, but by no means the only possible route, even with the frail available in 2000 BC. Although crossings between Brittany and Dorset's natural harbours would have been wild voyages involving days and nights at sea far beyond sight of land, a body of evidence from rich Wessex burials suggests that crossings were made in pursuit of gift exchange. It consists of gold work, objects such as plaques, and dagger hilts decorated with gold studs, that are thought on grounds of similarity to be the work of Breton craftsmen (Burgess 1980, Barrett 1985).

At best such feats of seamanship would have been so perilous that trade can hardly be seen as a motive for them. These activities were, presumably, exchanges of high prestige gifts between elites, presents whose symbolic worth was enhanced by the risks and courage involved in their transportation. After about 1700 BC material evidence for this interchange is replaced by artefacts clearly originating in Normandy, Picardy, and lands towards the Rhine (Cunliffe 1993, 127). Does this juncture it may be asked, mark the commencement of trade proper, via the Dover Strait, with the Wantsum - Thames route coming into its own? Direct contact between Armorica and Dorset seem to have languished during the following eleven hundred years or so. However, a role was preserved for the Dorset harbours in the developing coastal trade linking Ireland and Wales to the Thames and East Anglia.

The period 1700 to 600 BC was that in which by a combination of circumstances, a Thanet Gateway Community could rise to pre-eminence within Kent and play an important part

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in the South East as a whole. The emphasis of trading communication was now with northern France and the low countries with the Thames as the great trading highway. Wessex became marginalised at the end of the trading chain, and the eastern region became dominant. In particular the Thames Valley communities prospered as the focus of Continental contact, and of innovation in ceramic and bronze technology. Seen against this background, the heavy concentrations of bronze hoards and settlements in and about Thanet are significant, showing the Island to have a key role. By 1000 BC however, contacts between the Solent ports of the Wessex contact zone and Brittany began to develop.

The re-emergence of the Hengistbury Head port complex after 600 BC would not perhaps have seriously effected the trade of a Thanet Gateway Community, even though it heralded the opening of an extended exchange system linking Wessex with central Europe and the Mediterranean, and introduced the importation of such luxuries as wine. A decline in the availability of central European copper with a consequent dependence on Iberian sources (Rolands 1980a) might have been felt however. Of greater impact, and associated with the trade with Armorica, was the gradual development of safe and practical sea-going sailing vessels, see Chapter 9.4. Their advent in the Dover Strait - North Sea area, meant that the important Eastern Region with its Thames Estuary and Thames Valley communities came into direct shore to shore contact with the north European entrepôts, see Section 11.8. Thereafter, in terms of trading relevance, Thanet and the Wantsum were consigned to limbo.

11. 3. Identifying Gateway Communities; certainties or probability?

Some Gateway communities are the subjects of historic record. The existence of others may be accepted on the dual grounds of strong tradition, and of their exhibiting all the attributes and evidence commensurate with Gateway status. When stepping back though into prehistory, to sites only known from their partial archaeological exploration, only the balance of probability remains. The possibility that an area (group of sites) belonged to a Gateway community rests on the strength of four sets of evidential criteria. These are, in order of importance: a) That the area possesses physical or other factors as outlined in categories I - V of the next section. b) That the area exhibits conspicuous wealth in terms of prestige items only obtainable by trade or exchange. c) Evidence of a level of population higher than might be reasonably expected for an area devoted to agriculture / pastoralism and crafts. d) That no alternative explanation can be found for b) and c), e.g. that an area or single settlement was periodically a focus for ritual or ceremony, attracting large numbers of visitors, feasting and the display of wealth.

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Gateway or not? The balance of probability for a given site may wax and wane with additional phases of excavation. A case in point is that of Runnymede, Egham, and Wallingford, both of which have all the attributes of Later Bronze Age primary Gateway settlements controlling passage of the Thames, the major trading highway leading into the Wessex hinterland. A different interpretation has nevertheless been offered for both, as that of well preserved but otherwise unremarkable settlements of the period (Spence 1996, Bradley 1996) although nothing in the evidence would seem to preclude their having functioned as Gateway communities. Sites that combine the properties of elitist centres, or 'aggrandised enclosures' (Needham and Ambers 1994) with the Gateway community attributes listed in Chapter 1.2 will be pointed out and discussed hereafter.

11.4. Core and Periphery? Trade and Exchange.

In broad and very simple terms, Bronze Age Europe can be seen as initially marginal in cultural and material terms to a Mediterranean periphery and a Near Eastern core (Fig. 11.1). While constantly absorbing Near Eastern influence, Europe did not however become submerged in an expanding periphery, but remained 'culturally transformed but structurally independent' (Sherratt 1993). Developing 'marginal' Europe was far from economically and culturally homogenous. Its evolution is marked by the appearance and demise of Centres, each dominating a dendritic periphery of settlements. The scale at which core-periphery nodes can be identified is determined by the scale of the map employed. The basic close-to elements are 'Elite Centres,' often perhaps Gateway Communities, with peripheries of a few hundred square kilometres. A centre can also be conceived of in a different way, 'not as a single point, but as a large polity or even a cluster of polities' (Champion 1989, 3). At this scale, central southern England in the Later Bronze Age could be thought of as the centre to a British Isles periphery, a concept that many of its human components would have denied as vehemently then as they do today.

It is quite possible that, having much culturally in common, the interacting social units of the European margin thought of themselves as separate but equal. Broadly however, a cultural and technological hierarchy existed, based on contact with the Mediterranean, and the rate of northern and western diffusion of influence from this. The initial trade routes in Mediterranean products, metals and metal objects, fine ceramics, and wine, appears to have been north-east, towards the source of the reciprocal amber trade.

As 'trade' in the widest possible meaning of that term is the *raison d'être* for a Gateway, it is necessary to consider to what extent the modern concept of trade equates to ancient practice,

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either in motivation, mechanism, or eventual result. The discussion of ancient mechanisms for trade and exchange has occupied archaeologists for many years, and continues to do so (Scarre 1993, Renfrew 1993, Dark 1995). The various possible forms of exchange are shown in a useful graphic figure by Dark (Dark 1995 reproduced from Renfrew 1993). Forms of social interaction such as reciprocal exchange and central place redistribution, and even 'down the line trading' do not lend themselves to the fairly rapid passage of commodities throughout a European system. For this to happen as the balance of evidence suggests, Europe and the Mediterranean in the Later Bronze - Iron Ages must have constituted an entire trading system on the modern world model (Wallerstein 1974) in which 'direct access trading,' 'middleman trading', and 'ports of trade' can all play a part.

Certain anomalies in exchange values could arise between centre and periphery as what were utilities at point of origin become prestige goods at periphery. For example, the Greeks were amazed that 'Celts' were prepared to accept as little as one amphora of wine for a slave. But as Champion (1989, 14) remarks it is probable that the 'Celts' were similarly surprised. The archaeological evidence poses problems of the same kind. Trade from Iron Age Armorica to the ports of the western English Channel coast is abundantly illustrated by finds of metalwork, coins, and ceramics. Evidence for reciprocal exchange on the other hand rests on a few fragments of 'lignite' (?Kimmeridge shale) armlets (Cunliffe and de Jersey 1997, 1). This suggests that outgoing British commodities were of an untraceable nature such as slaves, furs/fabrics and metals in ingot form.

11.5. British Gateway Communities

In considering cross Channel trade routes and the evidence for British Gateway communities, a dichotomy emerges between the period 2000 - 600 BC, during which, seemingly, all contact with the Continent was via the shortest crossing at the Straits of Dover, and after 600 BC when direct voyages between Armorica and south-western Britain and Ireland became possible. In the first phase, vessels crossed to the nearest landfall in east Kent. From there, traders could either enter the southern British hinterland along the Thames, or navigate the whole coastline of Britain, with Ireland easily reachable from Kintyre and the Mull of Galloway.

After 600 BC, although contact with the Rhine, Somme and Seine communities necessitated a Dover Strait, Wantsum, Thames route, coastal trade to the west would have become progressively redundant. This development, with Wessex becoming open to direct trade with Armorica, would have had a profound effect on established Gateway communities that had

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benefited as down-the-line intermediaries. Their progressive irrelevance and decay would then have engendered significant regional changes of emphasis.

The next two sections examine candidates for the status of Gateway Community in each of the periods defined above.

11. 6. Possible Gateway Communities in Britain; 2000 - 600 BC

Ports of entry

A case for the status of prehistoric Thanet as a Gateway Community, both as an entrepot for Kent and as a controlling community over passage of the Wantsum Channel is made at length in this study. From the east Kent - Calais region cross Channel link, imported and exported goods would have been transported as far as possible by coastal navigation, being distributed to the hinterland along major rivers and their tributaries. Thus any major river estuary presented the opportunity for a Gateway settlement to flourish.

The existence of Gateways may be suspected at a number of such locations, especially on the Channel and Atlantic coasts of Wessex and the West Country. The Isle of Wight exhibits a similar display of settlement remains, concentrated cemeteries and finds as Thanet, being rich in bronzes with much imported metalwork. Wight shows 'clear emphasis on settlement around harbours and river estuaries' perhaps exercising 'control of inland exchange' (Barrett and Bradley 1980a, 198). A 'central enclosure' has been predicted for Cornwall (Ellison 1980). Were such an enclosure to have existed, and bearing in mind Cornwall's geography as a peninsular cut by rivers, it may also have been an entrepot. Four possible Gateway settlements on or close to estuarine locations are listed below.

Hook near the mouth of the Hamble, Hampshire

Here a major Deverel-Rimbury defended enclosure has been partly excavated. It was extensive, with gateways and palisaded walls. The site yielded continental metalwork and ceramics (Barrett and Bradley 1980a, 187). As the map reveals, a powerful community in this setting had the potential to control not just the Hamble, but entry via the Solent to the rivers Test and Itchen.

The mouth of the Great Ouse and Snettisham region, on the Wash coast, north Norfolk

No single settlement site is outstanding as a possible 'central enclosure' in the Snettisham region, but a concentration of enclosure cropmarks, bronze finds, hoards and pottery can be identified in an area of roughly six by three kilometres (Lawson 1980, Fig. 9). A settlement

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close-by at the mouth of the Ouse would be able to control passage into the whole major Norfolk river system, along which Lawson's distribution plans show concentrations of bronzes and hoards indicative of heavy settlement. By an extension of power, an Ouse-mouth Gateway community could have also controlled the mouth of the Nene, or even the Welland, and the populous Cambridgeshire Fens. No major enclosure has been detected near the mouth of the Great Ouse as it exists today, but the effects of rising sea levels and coastal erosion during the last 2000 years could easily have put any such remains beyond archaeological perception.

The Scunthorpe area and the estuary of the Humber

Scunthorpe lies south of the Humber between the lower reaches of the rivers Trent and Ancholme where they join Humber estuary. Up-stream to the west the Humber is joined by its tributaries, the Nidd, Wharfe, Aire and Don, winding north west into Yorkshire. Opposite the mouth of the Ancholme on the north bank of the Humber is North Ferriby with its important prehistoric boat remains. Plots of bronze finds and hoards for the whole area have been drawn by Julie Gardiner. For all three periods of the Bronze Age, they show a heavy concentration in the Scunthorpe area, with a spread of concentrated groups distributed east and south of Scunthorpe on the better soils (Gardiner 1980, Figs 2, 3, and 4). Although no settlement evidence has been found, to quote Julie Gardiner: 'Scunthorpe lies in a classic "Gateway" position.', (Gardiner 1980, 122).

Down stream from Scunthorpe the northern bank of the Humber is cut by the mouth of the Hull. This river drains the east Yorkshire Wolds through the Vale and Plain of Holderness. Finds and settlement evidence has been marshalled to demonstrate that the area was populous throughout the Bronze Age (Manby 1980), with the Hull the obvious distribution highway. A well established Gateway community in the Scunthorpe area would have found little difficulty in extending its authority to the Hull estuary. Such a community could control distribution and export over a territory encompassing the Yorkshire and Lincolnshire Wolds and coastal plains, with perhaps natural boundaries on the lines of the rivers Derwent, Trent and Witham, and the Lincoln Edge.

The Mucking North and South Rings, Essex

The site of the Mucking north and south ring enclosures would certainly have had strategic value, overlooking as it does the natural crossing of the head of the Thames. In this respect it has been compared with Highstead on the Wantsum Channel (Jones, and Bond 1980), who postulated:

"A Late Bronze Age Mucking controlling the Thames, as later the Saxon Laeti

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are thought to have established their encampment on this spot (Myres 1968)."

However, the size, dearth of imported artefacts, and apparent wealth of this Later Bronze Age settlement complex does not seem commensurate with what might be expected for a community controlling the two-way passage of the Thames. Such control, over a deep swift flowing tidal estuary over 2 km. across would have been difficult with the craft of the time. Boats coming up or down stream in mid-channel, with the aid of the making tide or full river flow, would most probably pass Mucking before the settlement's mariners could man their boats and intercept. A more likely role for Mucking is as Gateway port controlling trading access via Mucking Creek to a large inland area bounded by the Lea and the Blackwater.

Riverine control points

Along the Thames a number of Later Bronze Age settlement complexes have been discovered that may in each case have existed in the form of riverside 'aggrandised communities' (Needham and Ambers 1994) controlling distribution from the riverine trading highway to neighbouring settlement centres and beyond. They are, running up-river east to west:

The Runnymede - Petters complex at the junction of Thames and Colne, in all twelve settlements. The Marshall's Hill complex at the junction of the Thames and Kennet and on the Kennet, fourteen settlements.

The Wallingford complex, eleven settlements.

The Lechlade complex, six settlements.

While a considerable amount of research on these sites has been carried out, apart from Runnymede, most remain unpublished at time of writing. In each case one of the settlements is a riverside 'aggrandised enclosure,' while its neighbouring settlements display field systems (Yates, D. 1998).

When in 1980 the BAR publication 'The British Later Bronze Age' appeared, some of its contributors had little doubt about the existence of these Gateway communities, and the importance of the Thames. Bradley argued that the Wessex area became increasingly dependent on the Thames Valley settlements rather than Hengistbury Head for Continental trade. Central authority breaking down as high prestige goods could be obtained through these sources, not through a 'King' (Bradley 1980, 64). "*From sites such as Runnymede communication and exchange both up-river and inland could be controlled*" (Barrett 1980, 95). According to Needham, and Burgess, the concentration of bronze finds and hoards increased down stream towards the Croydon area and the Wandle Valley (Needham and Burgess 1980, 453). The Thames Highway was governed by the economy of communities along its banks so that:

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“Thames-side communities were preoccupied with re-distribution to rich centres up-stream, or even across the Channel” (Needham and Burgess 465).

In 1980 the only Thames-side site that had been subject to modern excavation was Runnymede Bridge, Egham, (Needham and Longley 1980). Although periodically abandoned and subject to flooding (Needham and Longley 1980, 397) it was a wealthy site exhibiting exotic items from different sources (Needham and Longley 1980, 410). Its piled river frontage could be associated with control of the river passage, providing docks for control craft, and an ostentatious display to visitors (Needham and Longley 1980, 421). At Petters, Carps Tongue sword finds were among other Continental bronzes found.

Later however, the importance of exchange and distribution in the life of these riverside communities was called into question (Spence 1996). Were they not simply excavated examples of a class of high prestige settlements that would elsewhere give the same results on excavation? As an and/or alternative, might they not have been periodic meeting places given to feasting and extravagant displays of wealth? Neither possibility precludes their also functioning as Gateway communities.

11. 7. Possible Gateway Communities in Britain after 600 BC

The greater background to prehistoric trade and exchange in western Europe and the British Isles is that of the constant north-western movement of goods and technologies from core to periphery and beyond, a trickle at first, stimulated after about 600 BC by the entrepreneurial activities of Phoenicians, Carthaginians, and Etruscans, and the establishment of the Greek mercantile colonies in Italy and France, (Fig. 11.1). Nothing, coins apart (Chapter 6) has been found in the Thanet or east Kent area to demonstrate contact.

After 600 BC an entirely new trade connection started to develop between the Mediterranean and Atlantic coast trading ports and the south-western seaboard of the British Isles. The following four hundred years provide comparatively little physical evidence for this, but the similarities between the metal vessels, brooch types, and ceramics strongly indicate cultural contact between Armorica and Brittany, and Devon and Cornwall (Cunliffe and de Jersey 1997, 2 - 71) As background evidence we have Pliny's account of the Carthaginians trading with the natives for tin at the British island of Ictis. While Ictis cannot be firmly identified, a case is made by Cunliffe among others for Mount Batten in Plymouth Sound (Cunliffe 1994, 355). Cunliffe also speculates as to an extensive coastal trading network rounding Thanet to the Thames Estuary, East Anglia, and Lincolnshire (Cunliffe and de Jersey 1997, 55).

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From about the commencement of the second century BC, communities on Britain's western Channel coast seem to have been in constant contact with Armorica. Metalwork and ceramics were exported from inland of Baie de Saint Brienc using St. Peter Port Guernsey as stopover. The need for this diversion could have been to minimise voyaging time spent out of sight of land (McGrail 1983) but another light may be thrown on this by the need for largely oar-propelled vessels to replenish drinking water daily. Classical and historic sources allow the calculation that a galley manned by fifty oarsmen would need to take aboard 500 litres of water for each day's rowing, while retaining an emergency reserve (Wegener Sleeswyk and Meijer 1998). Such a necessity could have been extremely beneficial to the Guernsey community.

While at first some of the trading contacts were with the western peninsular, the main axis soon shifted to the Solent area (Cunliffe and de Jersey 1997, 56). In particular, to Hengistbury Head, a natural entrepot to the hinterland of Wessex. Concentrations of finds in the areas of Poole Harbour and Christchurch seem to indicate a river traffic into the 'Wessex contact zone.' The river Arun may well have constituted a rival trading focus to the Solent region, the river itself representing a significant cultural divide (Cunliffe 1991). A complex of dyke systems and earthworks at Arundel Park with finds of high prestige imported materials suggests a 'trading focus' occupying a similar 'frontier' position to Hengistbury, and one well placed for trade with Lower Normandy and Belgica, via the mouth of the Seine (Cunliffe and de Jersey 1997, 106).

The marginalisation of the Dover Strait crossing, new cross Channel links after 600 BC

As outlined in Section 11.7, the period from about 600 BC to 400 BC was one of tentative but developing contact between the people of southern and south-western Britain, and the Mediterranean trading nations. The latter soon had imitators, 'middle-men' from the Iberian Peninsular and Brittany, who, after 200 BC more or less supplanted their exemplars. Trade from Armorica expanded enormously, with a new highly esteemed export, wine (Galliou 1984). The effect of this would have done much to change of emphasis of coastal trade, from west-going traffic to east-bound. At the same time, improvements in ship design with increased size, brought sailing vessels of improved cargo capacity, capable of long sea voyages, if need be against prevailing winds and currents. The new situation is given in Fig. 11.3. From this it can be seen that the Wantsum Channel no longer had navigational relevance other than for local trade, and that a Thanet Gateway Community would be drained of its lifeblood.

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11. 8. Discussion

Since this work is concerned with the Isle of Thanet as location for a British Gateway Community, a restricted review of the evidence for trade and possible Gateway Communities would seem appropriate, one confined to English Channel and Dover Strait crossings and British coastal and riverine routes. Here a dichotomy of practice emerges, born of the limitations in the design of seagoing craft before 600 BC, which rendered anything but a Dover Strait crossing desperately hazardous, and after that date when the galleys of the Mediterranean trading nations appeared in the Atlantic. Unsited as these rowing and down-wind sailing vessels were to the wild waters they now entered, they *could* cross the western English Channel, voyages of 100 - 180 kilometres out of sight of land. This ability, with a greater cargo capacity, must have profoundly influenced the maritime peoples of the Atlantic Front, Channel and North Sea, leading to the eventual development by the people of the Atlantic seaboard and Scandinavians of deep hulled sail only merchantmen.

As the foregoing sections of this chapter illustrate, there many locations in western Europe and the British Isles that present evidence for their having functioned as prehistoric Gateway Communities. Here and there gaps exist, where a populous and apparently wealthy hinterland seems to possess no link for distant trade via a coastal or riverine entrepot. Where for example are the Gateway ports on the Atlantic coast of Devon and Cornwall, the Bristol Channel and Severn? Several bays with major river estuaries in the south-west would seem to deserve close attention. Padstow Bay (R. Allen), Bideford Bay (R. Taw), Bridgwater Bay (R. Parrett), and Avonmouth are likely locations, with Bridgwater Bay in particular giving access to the populous Somerset Levels and Glastonbury area. Perhaps valuable settlement evidence has been lost to us through rising sea levels. The Mesolithic - Romano-British sites at Westward Ho!, Bideford, have been recently inundated and destroyed (Balaam *et al*, 1987).

The pre-eminence of the Dover Strait crossing, 2000 - 600 BC

All the while sewn-planked craft were the only sea going vessels capable of trading voyages, the Channel crossings at the Dover Strait described in Chapter 9 would have remained the only reasonable option. Voyages from say the Cherbourg Peninsular to Portland Bill or the Solent, or from the mouth of the Somme to Beachy Head, were the best alternatives, and may rarely perhaps have been undertaken, but all were crossings of over 100 kilometres (straight-line), in real terms involving several days and nights at sea beyond sight of land. With the Dover valley and the mouth of the Wantsum the only practical landfall from France, coastal trading routes would have had to serve for distribution throughout Britain. In the latter case the further imports

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travelled from the primary landfall, the more their 'trading value' might be expected to increase, and conversely, their incidence as surviving finds diminish. Something of this effect can be seen in O'Connor's distribution maps for Continental bronzes (O'Connor 1980). A map showing coastal and riverine trade routes from the Dover - Wantsum landfall, and the possible Gateway communities situated on them is given as Fig. 11.2.

The demise of the Thanet Gateway and the fortunes of Thanet's island community, 600 BC - AD 600.

With new more seaworthy craft appearing during the Iron Age, and new long distance trade routes being pioneered, the eventual fate of Thanet's Gateway economy was sealed. The demise would have been protracted however, taking place over centuries. A process too slow to cause the inhabitants alarm, and giving time for them to adapt various facets of their lives and activities to the changing conditions. Elsewhere in this work it can be seen that Thanet was home to thriving Early, Middle, and Late Iron Age communities, presumably sustained by the Island's rich soils, fishing, and whatever trading opportunities continued coming their way. The Wantsum Channel, while diminishing in importance as a link in the North Sea - Thames trading highway, still afforded splendid havens at both entrances in storms, and was still, via the Stour, the direct mercantile link for the Iron Age communities of the Stour Valley, and in the Late Iron Age, the oppidum of the Cantiaci at the site of modern Canterbury.

During Roman rule, passage of the Wantsum was commanded by the Saxon Shore Forts of Rutupiae (Richborough), site of a Claudian fort, and Regulbium (Reculver), these locations being also witness to the strategic importance of the beaches of Thanet and those between Dover and Reculver as potential sites for major hostile landings. Excavations since 1980 have revealed a picture of a populous Roman Thanet, its farming communities governed by at least thirteen villas (Thanet SMR evidence). Nor did the Island's population decrease in the Saxon period, as witness the presence of five huge rich Dark Age cemeteries. It is also significant that the Jutish kings of Kent maintained Sarre in Thanet under a royal portreeve, as one of the two major ports in their kingdom. All this would seem to indicate that a social/economic entity created by a fourteen hundred year domination of a major trade route, would long afterwards maintain some traces of its presence, materially and in tradition and memory.

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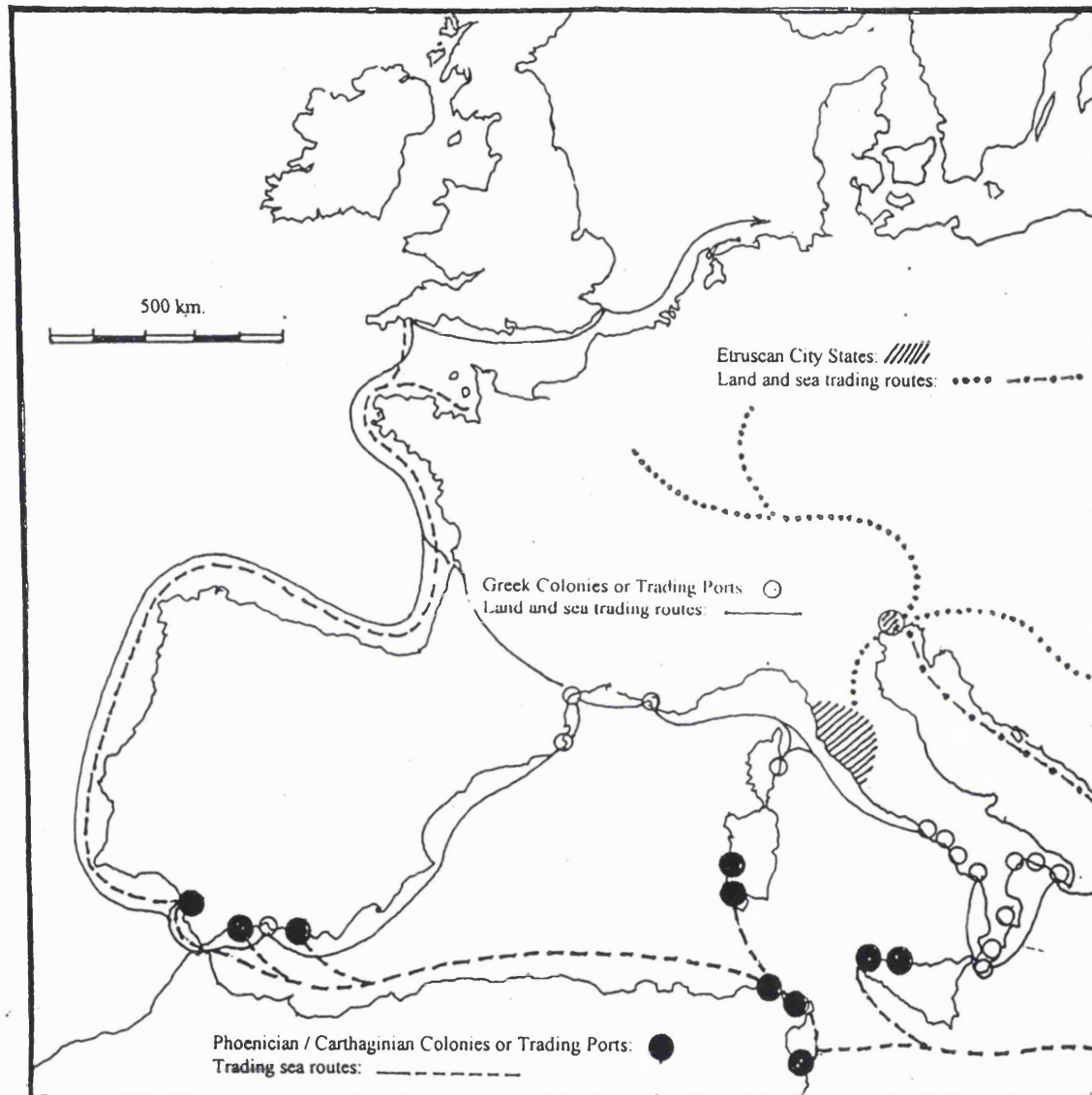


Fig. 11.1. TO THE PERIPHERY AND BEYOND; TRADE ROUTES DEVELOPED BY THE MERCANTILE COMMUNITIES OF THE MEDITERRANEAN AFTER 600 BC

Based on Cunliffe (1994) maps 340, 344, 345, and Cunliffe and de Jersey (1997) Fig. 35

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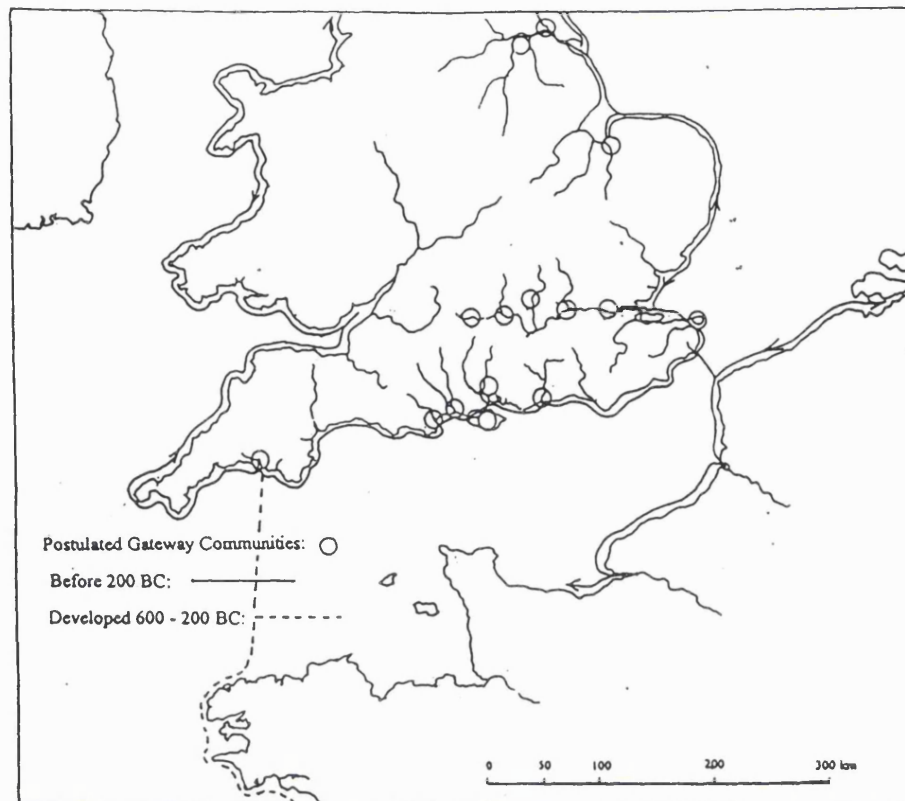


Fig. 11.2. Cross-Channel and British coastal trade routes before 200 BC

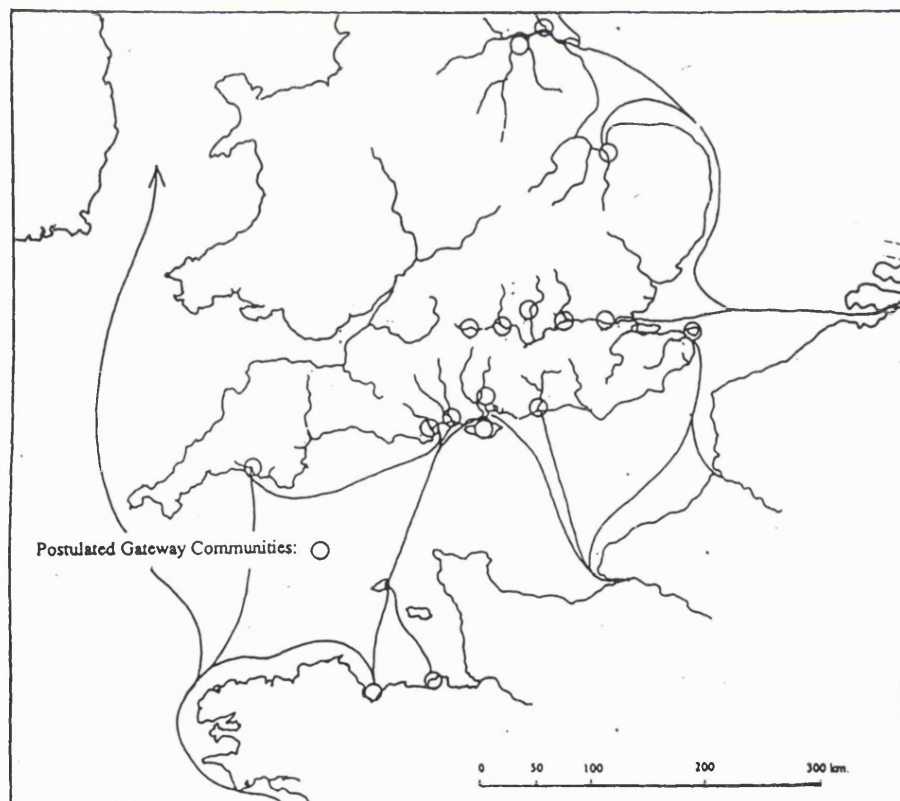


Fig. 11.3. Cross-Channel trade routes developed after 200 BC

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CHAPTER 12. SUMMING UP; ARCHAEOLOGICAL IMPLICATIONS AND FURTHER RESEARCH

12.1. A general summary

The preceding chapters in the sequence 2 - 7 have dealt with the Kentish distributions of cropmark sites, round barrows, and prehistoric settlements, bronze hoards, coins, and ceramics. Each has presented material evidence which to varying degrees supports the existence of a prehistoric cultural focus in and about the Isle of Thanet. Some sections of some chapters offer neutral or in one or two cases negative evidence. Broadly however, the distributions dealt with in the chapters are unambiguous, localising the concentrations of first and second millennial prehistoric human activity in Kent to Thanet and its close environs with no other area of Kent thus far in contention. That throughout the County many sites and finds await discovery is something that cannot be contested. That their discovery would radically alter the distributions away from Thanet and the Wantsum is however a most unlikely proposition, since it would require there to have been an extraordinary bias in the emergence of evidence towards north-east Kent during the last one hundred years. Manifestly there has been no such bias as is demonstrated in Chapter 2.2, wherein the possible factors tending to create bias in the distributions are each examined and refuted. In combination, the evidence from Chapters 2 - 7 gives an explicit picture of an on-going prehistoric Thanet community that was populous, far trading, and, by inference, wealthy and influential.

Chapters 8 and 9 have considered the geomorphological circumstances and the slow evolution of seagoing craft as factors that would have constituted in the Wantsum and the Isle of Thanet a matrix within which a Gateway Community could develop and flourish. Chapter 10 establishes the apparent centre of the community and defines its physical and chronological boundaries. The last chapter demonstrates that, if Thanet was a Gateway Community, it was far from being unique. Other such communities and centres of power became established throughout Europe and the British Isles during the period, and a Thanet Gateway Community would only have been distinguished from its contemporaries by the unique natural advantage granted by the Wantsum and the pattern of tides and currents in the North Sea and English Channel.

The preceding chapters presents the argument for the thesis of a Thanet Gateway Community based on the state of current knowledge. The reality of such a community has considerable implications for future archaeological activity in and about Thanet and the Wantsum, both in terms of the sensitivity of the whole area to future development and

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agricultural attrition, and the possibilities for research work. These areas for concern and consideration are discussed in the following sections.

12.2. The archaeological implications

In considering the archaeological implications attendant on the evidence assembled in the course of this study, what must first be asked is how representative is that evidence in its various forms likely to be. What were the mechanisms of its assemblage? On this depends the confidence with which, by projections from the data, predictions may be attempted as to the archaeological potential of the Gateway Community area for any given period. Archaeological data within the defined Gateway Community area divides into three categories as:

- a) Recorded cropmarks.
- b) Encountered sites, identified and investigated to various degrees.
- c) Chance finds.

Category a) results from research and can be considered as more or less comprehensive within the limits imposed by unresponsive soils, urban development, and sites without deep cut features or surface scatter. It is the case that in cropmark display areas that have been photographed a number of times over decades, new sites will now and then be recorded. Factors involved in this are: Unusual arid conditions when shallow buried features will show; that the site has never been in grass or cereals when photographed, so that there were no cropmarks; or that plough attrition has removed colluvial deposits, bringing buried land surfaces within cropmark development depth. It seems a reasonable estimate that on responsive soils something like 10% of sites may go undetected because of these factors.

While many of the sites or find spots in Categories b) and c) must be considered fortuitous discoveries, many were encountered during the development of urban Thanet and its infrastructure. This means that there is an element of selective sampling involved. The three Thanet towns, Broadstairs, Margate and Ramsgate, grew from medieval fishing hamlets situated on the shore where valleys broke the line of chalk cliffs. From these spots post seventeenth century development expanded equally on three sides away from the original settlement up onto the surrounding downland, a process that continues to this day. At the same time Thanet's old villages, Acol, Birchington, Manston, Minster, and St. Peter's, remained remarkably static, hardly expanding at all until midway through this century. To service the towns a system of roads was developed, linking them with the City of Canterbury and the market town of Sandwich. These

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roads, (Fig. 12.1) paralleled by railway lines from the mid-nineteenth century, were clearly based on prehistoric and Roman tracks and roads, as they are in many places bordered by barrows, cemeteries, and enclosures that obviously respect them.

A bias therefore exists in the Thanet register of recorded sites in terms of linear sampling along the lines of roads and rail tracks, and peripheral sampling around the towns, as against the rural area which represents 75% of Thanet, (Fig. 12.1). With regard to urban development, a counterbalancing factor that must be remembered is that the construction industry throughout the nineteenth and most of the twentieth century had negative motivation with regard to notifying the discovery of archaeological remains. The writer's father, a building worker, and his colleagues had many anecdotes, some supported by material evidence, of management ordering the wholesale destruction of archaeological features including mosaics and human skeletal materials.

Elsewhere in this work it has been necessary to consider the evidence, say for the distribution of settlement sites, period by period. In considering the implications that may be drawn from the study data, and bearing in mind the different manifestations characteristic of each period, this approach is followed below with some combination to avoid repetition. Where important evidence has emerged within the Gateway Community area after this study's 'stop date' of 1994, it is included, but discussed with any comparable post 1994 evidence from elsewhere in Kent.

Implications: The Neolithic Period and Early Bronze Age

For the Neolithic period, in so far as cropmark evidence in Kent is concerned, there is a great paucity. Chapter 2 identifies very few sites to the period, most of them attributed as 'earthen long barrows' from maculae marks. None of these sites has yet been examined. While finds of worked flint and the occasional sherd are more widespread, burials and the remains of settlement are, as can be seen in Appendix 5.2, few and rather localised. Does this distribution reflect the true level of occupation, or merely that Neolithic remains are often so insubstantial that unless archaeologists are present at their exposure, they go unnoticed?

Three recent discoveries in the Isle of Thanet support the latter contention. The first of these in 1994 involved the construction of a large water treatment works on farmland on what was once the Ebbsfleet peninsular. The cut for an access road revealed a ditch fill yielding Neolithic sherds, and nearby a ring ditch only about 3 m. in diameter a single section of which contained a polished flint axe (Hearne, Perkins and Andrews 1995). Evaluation work nearby by the writer prior to construction had located Beaker sherds in a settlement context and a beaker flat grave, see Appendix 7.1, Beaker list numbers 4 and 38.

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Again in 1994 a length of ancient 'Dunstrete,' today the A253, was 'duelled.' A new dual carriageway 40 m. wide was constructed, running parallel to the (probably) prehistoric track for 2.4 km. In addition to the discovery of eighteen major and un-suspected sites of all periods, a number of Neolithic and Beaker flat graves were found (Bennett *et. al.* 1996). Scattered sherds were found representing several Neolithic bowls and at least eighteen beakers, with three complete vessels coming from flat graves, see Appendix 7.1, numbers 6 and 12. These finds were in association with nine barrow ring ditches in three sub groups, the largest monument, a triple ring ditch appearing to terminate what has been termed a 'sacred row' of large post pits.

A major highway development pending at time of writing is the 'Port Ramsgate Relief Road.' This will bypass the town of Ramsgate, conducting heavy traffic to and from the port via a tunnel and across farmland to the A253. The road route traverses an area rich in enclosure and ring-ditch cropmarks, and passes close to Neolithic settlement remains discovered by the writer in 1994, see Chapter 5, Site 12 (Chalk Hill). Evaluation work ahead of the project was carried out in the summer of 1997 by Canterbury Archaeological Trust. Trenching revealed the ditches of an apparently large Iron Age enclosure superimposed on an area of Neolithic occupation. Finds included a crouched inhumation, a scatter of flints and sherds, and a ditch that from previously overlooked aerial photo evidence is now interpreted as a part of a causewayed enclosure (pers. comm. N. Macpherson-Grant).

The above three large construction projects, plus two others to be mentioned below, constitute a major archaeologically monitored sampling of Thanet's green field landscape. Fortuitously and most usefully, the five samples encompass between them all states of Thanet's topography and geology; the deep brickearth central plateau; the chalk downland escarpment; the downland lower slopes under colluvium, and ancient coastal land surfaces partly under alluvium.

The new Neolithic sites described above increase the Kent corpus by 15%, and the Ebbsfleet beaker settlement remains are an addition of 25% to the County total. Collectively, the Neolithic and beaker settlement sites and flat grave burials recorded on the three construction sites give a statistical expectation that such remains might be present in areas between Thanet's chalk escarpment ridge-line and old coastline in distributions of fifty-two sites per square kilometre. Even if the three areas sampled are so un-typical as to overstate the case by a factor of ten, and there is no reason to suspect that they do, a distribution of five sites per square kilometre would still demonstrate sustained and concentrated habitation of the Island during the Later Neolithic and Beaker periods.

Implications: The Middle and Late Bronze Ages

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For these periods the evidence to be considered is that of settlement remains and finds of bronze objects, the latter, as argued in Chapter 4, usually indicating the former. Two large Thanet construction sites mentioned above have again brought new evidence having major implications.

First of these was 'Kent International Business Park' at Manston, covering 68 ha. of farmland on Thanet's central plateau. This was evaluated by repeat pattern trenching in 1994 and 1996, with three settlement sites being excavated in 1996/97. In the southern half of the area, intense plough attrition was evident, and the few archaeological features that survived were badly damaged and truncated. They consisted of pits, postholes, and hearths, scattered throughout an area of something over 1 ha. (c. 3 acres), and contained pot sherds in the local fabric of the Deverel-Rimbury tradition. In association were found a pegged spearhead and part of a flanged axe.

When construction of the Business Park infrastructure commenced, the writer was able to arrange monitoring of this, particularly of the road cuts. This resulted in the discovery, close to the above mentioned remains, of the 'Cleve Court Hoard'. This consisted of eighteen bronzes, and included a pegged spearhead, narrow bladed looped palstaves, and fragments of at least five swords. While clearly belonging to the Penard - Wilburton Phase, c. 1200 - 900 BC, the presence of Carp's Tongue Sword fragments places it late in the phase. The only comparable hoard from Kent is that from Sturry (Jessup 1943/44), and the only recent find that of a Blackmoor Hoard type sword from Shatterling (Perkins 1995, 472). Other evidence to emerge on the periphery of the Business Park during the recent work consisted of an ingot hoard with Deverel-Rimbury pottery from within an enclosure cropmark at Allend Grange (Perkins 1995, 471), a small Late Bronze Age hoard from Flete Farm (Perkins 1995, 472), and the Birchington III Bronze Hoard (Perkins pending). This hoard has components of both the Ewart Park Anglo-Welsh, and Continental Carp's Tongue traditions of the Late Bronze Age, c. 900 - 600 BC. Although it numbers twenty-five objects, mostly socketed axes and sword fragments it is unremarkable.

The fifth development was that of the Thanet Reach Business Park, in extent 4 ha.. The most interesting features of this site, at St. Peters, Broadstairs, are outside the scope of this work as they are Mesolithic. The strata above these remains held a plough damaged horizon in which remnant features yielded Late Bronze Age sherds. Evaluation trenches indicated that the horizon might extend through an area of 1 ha. On a smaller scale, similar remains were found in 1996 by a Wessex Archaeology team working on a Tesco Superstore site at St. Lawrence, Ramsgate (Hearne 1997).

The distribution of Middle and Late Bronze Age settlement sites and finds of bronzes in Thanet is given in Fig. 12.2. Symbols used in the figure differentiate between sites and finds discovered by 'chance', metal detector, pipeline trenching etc., and discoveries resulting from

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large area investigations ahead of major developments. Thus, the evidence can be viewed in two ways:

- a) As a chance sampling of a distribution of sites and finds discovered through time. While this can tell us nothing about the density of distribution, it is evidence for the likely location of sites/finds.
- b) As the density of sites and finds per hectare within randomly distributed areas of Thanet subjected to investigation.

To deal with a), Fig. 12.2 reveals that the areas favoured for occupation as indicated by both settlement remains and bronze finds are the slopes from the downland escarpment to the ancient shoreline, with the majority of sites actually on the shore or within one kilometre of it. The five exceptions to this, four sites and a cluster of bronze finds, all on the Island's central plateau were discovered during recent large area investigations. A sixth site, Monkton, (Appendix 5.2, 32) came to light during trenching after bronze hoards were discovered. From this it may be inferred that plateau sites have lain protected by deep overburden until discovered by trenching, while the rest of the sites/finds, mostly on the coastal strip, were found during urban development.

The statistic for b) obtained from the six large scale investigations previously mentioned is the expectation of five to six settlement sites per square kilometre, or six bronze hoards or single finds per square kilometre. If the Kent International Business Park hoard and single bronzes with their associated pottery equate with one or more settlement sites, the expectation figure then becomes seven sites per square kilometre.

Implications: The Early, Middle, and Late Iron Ages, and 'Belgic' period

The most practical approach to the above periods is to treat them together, as in many cases the periods are present as phases of occupation on the same site. Thus much confusing cross referencing and repetition can be avoided, and a single distribution plan can be presented. Here again, the above mentioned recent large scale investigations ahead of major urban developments may profitably be considered, as they demonstrate the incidence of such sites in areas of Thanet not previously sampled.

The four major investigations where sites of the above periods were encountered were: Ebbsfleet, Hartsdown, South Dumpton, and Kent International Business Park, Manston. At the latter, in 1996 a large pre-Conquest 'Belgic' ditched enclosure was investigated by the writer. It was rectangular, about 1.5 ha. in area, and appeared to be consist of a cattle compound subdivided by palisade trenches, with a farmstead occupying about a quarter of the area. Interestingly, although the site overburden was only about 0.6 m. in depth, a number of aerial photos taken over the last fifty years show no sign of a cropmark.

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Figure 12.3 shows 19 sites of the Iron Age / 'Belgic' periods. Of these, 6 were discovered during the recent large scale developments, 6 during highway improvements or major pipelines, and 5 as a result of urban development. Of the remaining 2, one was revealed by cliff erosion, and the other was found by 'research' trenching over a cropmark. Therefore 90% of the sites are known as a result of some kind of development. This is an important consideration, as, if the Hartsdown and Kent Business Park sites had been omitted from Fig. 12.3, the distribution would have indicated the Island's coastal strip as being favoured for occupation, whereas without those sites the distribution would merely reflect urban growth and Thanet's road system. The 6 sites located during large development investigations provide a crude statistic; the expectation that Iron Age / 'Belgic' sites may occur throughout the Island in a concentration of 6 sites per square kilometre.

The Overall Implications

In summation then, the foregoing analysis of the three period-group distributions gives a combined forecast that prehistoric sites may be expected throughout Thanet in a concentration of at least 15 sites per square kilometre. This is about twice the incidence of 7.8 sites per square kilometre (see Appendix 2.3) known to exist from cropmark evidence. It is explained by the fact that much of Thanet's upland area, perhaps 40%, bears an overburden of either deep brickearth, measures of the Thanet Beds sands, or colluvium derived from both. Unlike the thin topsoils over chalk that provide Thanet's spectacular cropmark display, such areas are un-responsive to cropmark formation.

Where, rarely, the spatial distribution of the sites is something like even, no two sets of remains will be more than 280 m. apart. The overall reality is likely to be that of occasional gaps, probably dictated by topography, and clusters where the sites are almost superimposed. To illustrate from experience, in the southern third (20 ha.) of Kent International Business Park (Perkins, publication pending) trenching revealed little or nothing. Just 500 m. further south, at Laundry Hill, a Roman iron working site rubs shoulders with a beaker settlement enclosure whose enclosing ditch forms the northern boundary of a Dark Age Jutish cemetery, all within 200 m.! Clearly, any planned development in the Island must be deemed likely to encroach on important remains, however little is known of the given area from aerial survey or fieldwork.

12.3. An outline for further research

It is tempting at this point to set out an intricate research scheme designed by excavation and fieldwork to further investigate Thanet's prehistory and the concept of a Gateway Community.

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Tempting, but rather futile, since such a scheme would involve funded research excavations, events that occur increasingly rarely, and are only likely as in-house English Heritage activities. The prospects for British archaeology from now into the opening decades of the next century seem that of continuing contract archaeology carried out with increasing professionalism. As a background to this, the virtual demise of active amateur archaeology can be anticipated. While Kent may not be typical in this respect, at time of writing, and with one notable exception¹, amateur fieldwork groups in the County appear to be moribund. This trend is most unfortunate, since the great body of archaeological knowledge was born and grew with the activity of amateurs, and *could* continue as the only viable medium for broad and widespread fieldwork.

The above does not augur well for research. One may hope that the prospects will change. That greatly increased funding for research will be by some means obtained. Also, that County Archaeologists might realise that amateurs are not occasional nuisances whose activities are rather to be discouraged, but the pool from which each generation of graduates emerges. Nevertheless, it would be best to concentrate on the only research methods practically open in Thanet archaeology for the foreseeable future.

One field of activity that may well continue profitably is that of desk-based study. A large un-tapped archive now exists from dozens of Thanet sites that have been investigated, but either remain un-published or have been published only at interim level. The data could be subject to broad overview, or single categories of data could be extracted from the material archive for examination and comparison at local and regional level. A case in point; lithic evidence. Specialist analysis of the flint assemblages with subsequent publication has taken place for only three of Thanet's excavated or sampled prehistoric sites: Monkton, Appendix 5.2, List 4, Site 32, Ebbsfleet, Appendix 5.2, List 4, Site 33, and the round barrow at Northdown, Appendix 3.2, Site 9.

In the title of this study, the writer has combined the concepts of a prehistoric Isle of Thanet community with that of a Gateway Community, this entity probably embodying a sub-community of seafarers. If this is accepted as at least a distinct possibility, much scope exists for theoretical analysis of the evidence, and the design of tests of the hypothesis. How does the Thanet data compare with that from suspected Gateway Communities (Chapter 11, Sections 6 and 7) elsewhere in Britain?

Monitoring

In the field of Contract Archaeology, developments at any scale in the Thanet area will continue to provide a useful source of randomly sampled data. Civil engineering projects such as pipelines and cable-ways should also be closely watched, it being borne in mind that many

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smaller schemes of this kind are undertaken with scant notice given to the planning authorities. Continuing association with metal detectorists will also be essential, and the relationship can be developed with some individuals in ways that promise to be very profitable in terms of research. Recently, the writer has found it possible, on the basis of a single discovery, to imbue a detectorist with enthusiasm for a personal research project, in this case looking for Bronze Age metal objects and associated materials along Thanet's one-time Wantsum coastal shoreline in search of settlement evidence.

A potentially most important line of enquiry, and one neglected hitherto in Thanet, is that of monitoring dike cleaning operations on the Wantsum alluvial plain. Such activity would of course be confined to a band parallel to the ancient shoreline, as much of the Channel would have been deeply flooded by 2000 BC. The inspiration for such a programme of work is the Lydden Valley field survey carried out in the winter months of 1983-84 by the Deal-Dover Archaeological Group, (see Chapter 7, Discussion, the beaker period).

Survey and reconnaissance

Possibilities here include fieldwalking projects, the monitoring of wave attrition in the inter-tidal zone, and allied to this, cliff erosion. The potential of marine survey along the edge of Thanet's wave-cut shelf and inundated north shore is unknown. While conditions of underwater visibility might make survey impractical, properly briefed scuba divers might be able to find artefacts, take environmental samples from ancient flooded horizons, and even follow the seaward extension of inundated prehistoric settlements. Even after twenty years of aerial photography work by the Thanet Archaeological Trust and others, 'new' cropmarks are still being recorded, so that when funding is available, targeted aerial survey is still worthwhile.

Remote sensing, whether using the established electro-magnetic and resistivity techniques or ground-scanning radar, might well be employed with effect on some Thanet sites that are evident only from ground scatter. How though could such research be funded? The nub of the matter is that future research activity in Thanet is likely to be limited to the writer (or his successor) as director of the Thanet Archaeological Trust, amateurs archaeologists, and occasional visiting undergraduates. Funding for any research will have either to be 'shoestring' or raised by donation.

12.4. Final comments and speculation; what does it all mean in human terms?

The marshalling of evidence for this study has involved the examination, chapter by chapter, of various distributions throughout Kent and the South East. Weighing the significance of clusters

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of black symbols scattered over white gulfs of paper can tell us much about the distribution of populations through space and time, but evokes no visions of the people themselves. How did they live, what was their work, why did they live there, and who did they perceive themselves to be? Answering, or attempting answers to these questions is however what archaeology is all about, so that from data, and historic and ethnographic parallels, it is possible to assemble a picture of life within a Thanet Gateway Community. It may be wrong in detail on many counts, we can never know which. It may be profoundly deficient in major ways, from the lack of or mis-interpretation of evidence, but it is worth doing all the same.

The data establishes that through two thousand years, Thanet sustained a relatively heavy population, so thick in settlements, so well endowed with the trappings of wealth and 'symbols of power' as to be outstanding in Kent. A dedication to cross-Channel maritime commerce and a controlling interest in it is indicated as the source of that wealth. Proportionately, as a socio-economic focus within Kent, prehistoric Thanet equates with today's Maidstone - Medway Towns conurbation, whereas the unfortunate Thanet community of today is officially described as 'poor and deprived' (British Government's economic survey status).

However committed a Thanet Gateway Community may have been to commerce and navigation, many, perhaps most of the population would have been agriculturists or pastoralists. As proper to the season, nearly all their day, from dawn to the rise of the evening star passed in open, engaged in often hard labour. If the osteology of East Kent's Dark Age cemeteries provide fair comparisons, life was not too arduous (Anderson and Andrews 1997) although often marred by arthritis, ruptures, and ill-set bone fractures.

Such populations tend to be sedentary in outlook; their lives punctuated by festivals and highlighted by custom. Not so perhaps in Thanet where the most central rural settlement was only an hour's walk from the shore. The comings and goings of traders, perhaps foreigners, and the passage of exotic goods and animals may have permeated the whole island community with an expectation of the novel and a sense of belonging in an innovative society. Because the community was broadly one of 'fishermen with ploughs,' from which a maritime sub-community would have recruited, there may have been a degree of lateral social mobility. The chance for young men to adventure far from home as mariners, perhaps in some cases to return after many years with 'sailors yarns' to be told and re-told around the winter fires.

While bearing in mind that Hill (1995a,b) has postulated a non-hierarchical Iron Age society, in Thanet the variation in sites between large defensively ditched enclosures, and much smaller 'farmstead' enclosures suggests that within the island community there was social stratification, perhaps many-layered and complex, the structure of which we can only broadly guess. Some entity must have constituted the highest level of administration, its authority

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established by military and commercial power, probably admixed with status derived from custom and religion. In this context the large multi-period enclosures at Dumpton and North Foreland in their strong defensive positions come to mind as possible island citadels. Logically, from such an executive two ladders of command would develop. The first would be a general hierarchy, perhaps in places vague, descending via heads of settlement and farmers to the lowest labourer or slave. The second, more direct, would monitor and control the sea-shore 'port' settlements, from which cross-Channel navigation was initiated, passage and pilotage of the Wantsum Channel was regulated, and, one supposes, tolls and duties were levied.

What were they like, these prehistoric entrepôts? We are used to images of the wharves of Roman London, and 'Cogs' loading with wool for the continent on the quays of medieval towns. When it comes to the Bronze Age though, stereotypes of round huts and palisade fences intervene. Yet there is no reason why such ports would not have the necessary facilities that were common from Roman times on. They would need hostels for foreign mariners and visiting traders and their retinues, warehouses for the safe-keeping of goods, and a variety of workshops for repairs. Would there not have been taverns and brothels? Neither seem uncommon where sailors congregate!

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Postscript

Set aside the complex mass of archaeological data that forms the Thanet archive, and, speculating from it, we may glimpse as through a mist the passing generations of a bustling self important prehistoric community. The power base of the community ended, wealth and population became reduced, but the people continued. Consider Thanet's past during four thousand years. Think of the people who lived here, not in terms of named periods and dates, but as an unbroken chain of human experience, a rope of lifetimes, of which we are just the latest strands. 'Celt,' Roman, Saxon, are only heart beats and birth pangs away. We share their landscape. Go beyond the houses and sound of traffic, and little has changed. They heard the same south-west wind roaring in the trees, the same winter surf breaking, rejoiced at the sight of skylark and hare as we do. Behind time's thin screen they seem to fill the Thanet vista with an almost oppressive presence. If 'the proper study of mankind is man,' their shadows crowd at our elbows, ready to teach whatever we have the wit to learn.*

**Alexander Pope, 1688-1744, Essays on Mankind*

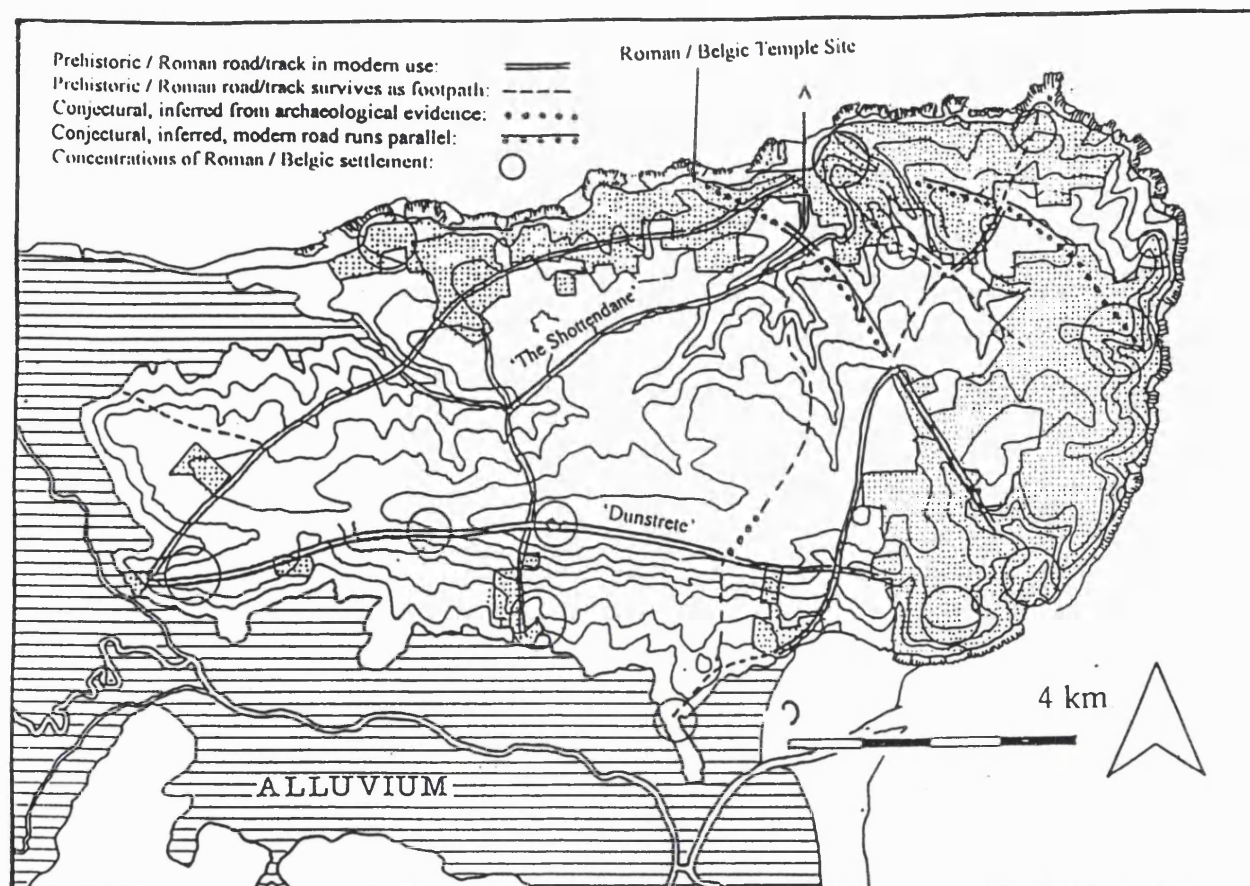


Fig. 12.1. Conurbations (stippled) in the Isle of Thanet and Prehistoric/Roman roads and tracks. The length marked 'A' is a surviving buried Roman road parallel to a modern road.

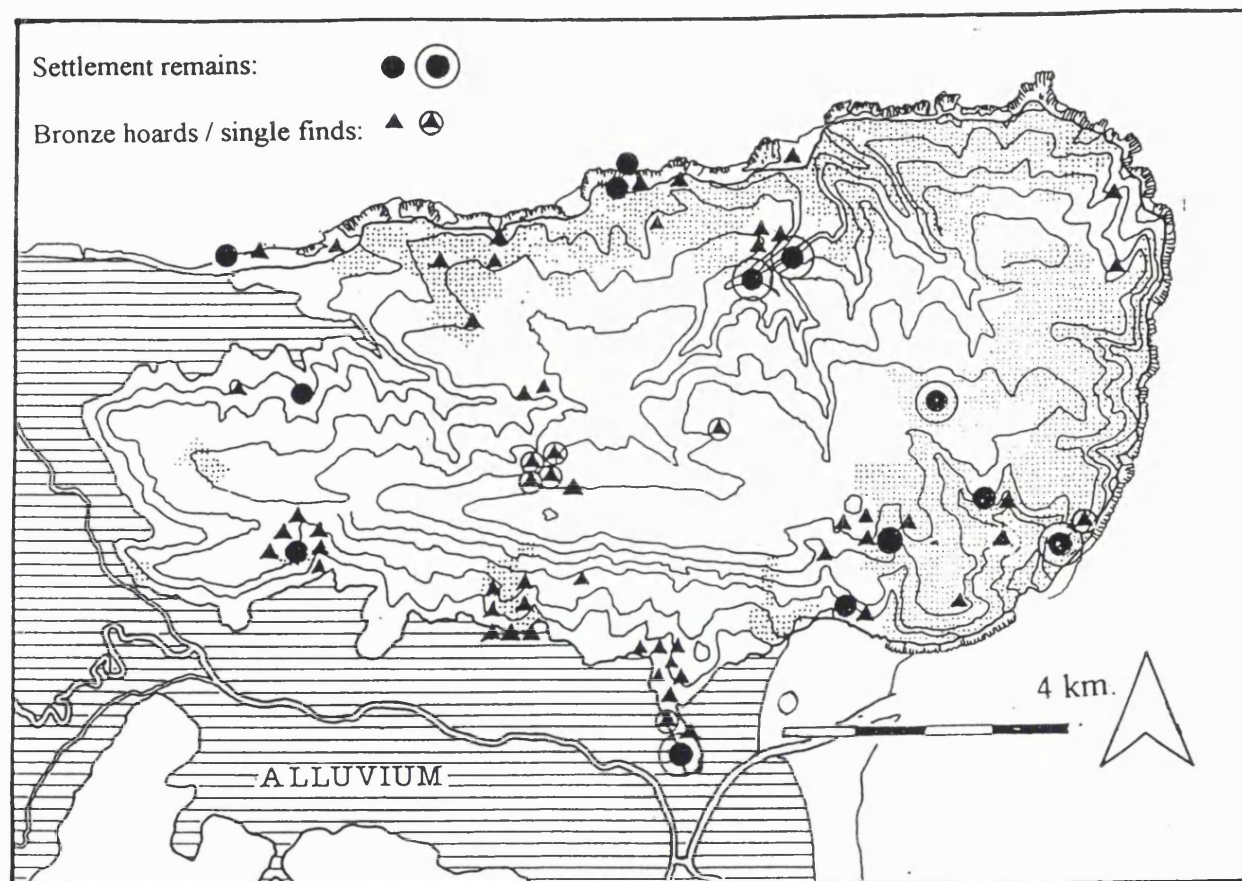


Fig. 12.2. Middle and Late Bronze Age settlement sites hoards and single finds in Thanet.
Ringed symbols show discoveries made during large scale archaeological investigations.

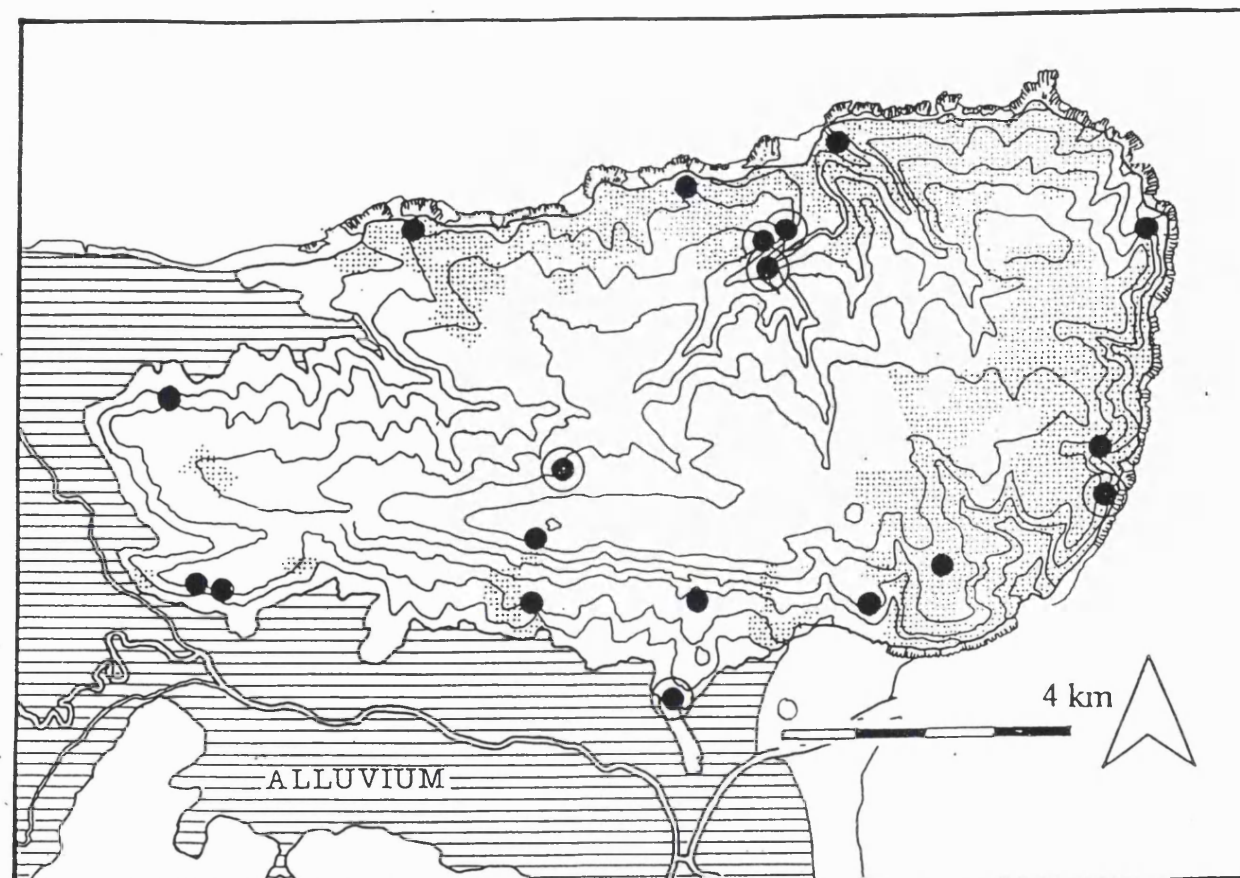


Fig. 12.3. Early, Middle, and Late Iron Age / Belgic settlement sites in the Isle of Thanet.
Ringed symbols show discoveries made during large scale archaeological investigations.

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AN EXPLORATION OF THE EVIDENCE FOR THE EXISTENCE OF A CULTURAL
FOCUS IN THE FORM OF A 'GATEWAY COMMUNITY' IN THE ISLE OF THANET
DURING THE BRONZE AGE AND EARLY AND MIDDLE IRON AGES

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THESIS SUBMITTED FOR THE DEGREE OF Ph.D. TO THE
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VOLUME II

CHAPTER NOTES, BIBLIOGRAPHY, APPENDICES, LISTS AND TABLES

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CHAPTER NOTES

Chapter 2:

1. So named by the writer after Sutton, a village south-west of Deal where cropmark density peaks.

Chapter 3:

1. In a note in *Proceedings of the Prehistoric Society* (Vol. 16, 1970, 380) Thurston Shaw, commenting on the earthwork experiments at Overton Down, Wiltshire, suggested that a scraping tool similar to a hoe might have been used. He cited an example from Nigeria in 1955, when an embankment 50 m. long and 4.0 m. high was constructed in a day by communal labour using only short handled hoes, the task being something of a competitive occasion. Apart from this work being at the direction of British Colonial District Officers, it can also have no parallel with excavating ditches in chalk, as the embankment was constructed from soil that cut and moved with wooden bladed hoes.

Assuming that the bank measured 50 m. in length, 4.0 m. high, and was 4.0 m. across at the top, this with an angle of repose of 45° gives a volume for the embankment of 1600 cubic metres. The plates accompanying the note show that something in the order of 300 young men were involved. If this was the case, then in a ten hour day each fit young villager had only to cut and move half a cubic metre of soil an hour, a task in no way to be compared with cutting ditches through chalk bedrock.

Chapter 6:

1. The writer has carried out a programme of analysis on potin coins in association with L. Day of the University of East London. The method used was X-ray spectrometry. Allowing for surface enrichment, a diverse spectrum of alloys was encountered.

Chapter 7:

1. Forthcoming as a Canterbury Archaeological Trust paper, 'The A253 Improvements 1994.'
2. Forthcoming as a Canterbury Archaeological Trust paper.
3. The enclosure ditch at the Laundry Hill settlement proved to have a circuit of 209 m. It was sectioned at the four cardinal points, each section being 1.5 m. wide. Two of the four sections held sherds, these representing 2 possibly 3 domestic beakers. By projection, the ditch fill could therefore be expected to yield something in the order of 200 sherds. Once the importance of this site had been realised a minimal approach to evaluation was adopted, and no attempt was made to examine the interior of the enclosure. Residual sherds belonging to another two beakers were obtained from a grave-fill in a nearby Saxon cemetery

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Chapter 8:

- 1) 'Passage' in this context means a place where shipping can pass. This is an indirect reference to the Ebbsfleet mouth of the Wantsum.
- 2) The cross mentioned probably constituted a navigational aid to guide shipping into a central deep water channel when the saltings on both banks were flooded. Entry to the mouth of the Stour on spring tides today would be difficult without tall seamarks on Shell Ness and the Thanet bank.

Chapter 9

- 1) Detailed plots of the major ocean currents appear in most good atlases. For the Gulf Stream the writer used 'Warm ocean currents and tides, 1) The Gulf Stream' in *The Readers Digest Atlas of the World*, London (1998), 38-39.
- 2) The writer dispatched a copy of the prehistoric cross channel pilotage postulated herein for comment by Mr. Reg Brickell, who is the best known and experienced among the group of Folkestone fishermen who accompany channel swimmers. Mr. Brickell's opinion is that it would be viable, and he says that it is very similar to the route and timetable used in a cross channel swim. He feels however, that a large paddled craft, even with a low freeboard, would make slightly better progress, and make the Cap Gris Nez - Dover crossing in seven to eight hours. He further commented that with the sort of freeboard that might be expected in a boat of the Dover - North Ferriby type, a weather window of comparative calm would be essential, as otherwise as much time would be used in bailing as in paddling!
- 3) Their deeply held Christian convictions were recorded in a number of mid-Victorian books, notably 'The Storm Warriors' about the Ramsgate and Deal volunteer lifeboat crews, whose fatalistic courage was a byword.
- 4) Examples from the writer's memory are that wives and dependants would wear nothing green while the men were at sea. Another belief was that when a smacksman died at sea his phantom appeared at that instant to his closest relatives. Smacksmen would never learn to swim, to do so would be to prolong the agony of inevitable drowning and 'go against God's will'.
- 5) Islands, especially in rivers, have a tradition as neutral meeting places among many peoples and times. An example is Runnymede on the Thames where Magna Charta was signed.

Chapter 11

- 1) The subject of a Medieval Grand Banks fishery conducted by the Portuguese was touched on by Wheeler in 'A History of the North American Fur Trade' (Wheeler, C., in '*A History of Seafaring*,' Bass, G., ed., London 1972). It has more recently been discussed in the pages of '*History Today*,' a Guardian supplement, and featured in a BBC documentary series on the history of navigation

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Chapter 12:

1) This refers to the 'Deal-Dover Group' headed by Keith Parfitt, which is extremely active at time of writing.

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APPENDIX 2.1, CROPMARK SITES; AN UP-DATED LIST FOR ALL KENT

Of the sites tentatively identified as prehistoric during the compilation of sources 1 and 2, some, such as 'staple enclosures' (KSAM List 3) have been omitted from this study as of unproven origin. Others, the 'possible barrows' have been included, although with reservations that are discussed elsewhere. The remaining 'hard-core' evidence comprises:

Rectangular ditched enclosures, List 1 (6), List 5 (1), List 6 (3),

List 7 (2), List 8 (4), List 9 (11), List 10 (48), List 11 (15),

List 12 (42), List 13 (8), List 14 (30), List 15 (16), List 16 (26).

Total 212

Circular/sub-circular enclosures, Lists 25, 26, 27 (10), List 28 (51).

Total 61

'Regular' ditched enclosures, List 29 (6), List 30 (7), List 31 (5),

List 32 (24).

Total 42

Oval ditched enclosures, List 33 (3), List 34 (6), List 35 (20).

Total 29

Curvilinear ditched enclosures, List 36 (11), List 37 (21),

List 38 (12), List 39 (30).

Total 74

Long barrows, List 17 (13), possible henges, List 18 (11)

Total 24

Round barrows, List 19 (50), List 20 (73), List 21 (616)

+ new TSMR entries (65)

Total 804

Possible hillforts, unlisted (3)

Total 3

Total of all sites 1249

With 'possible barrows' (macula) added, List 51 (179):

Total 1428

Kent has a land area of 3797 sq. km. = 1469 sq. miles

Density of prehistoric sites recorded by aerial photography:

For 1249 sites: 0.32 sites per sq. km. = 0.85 sites per sq. mile

If 179 'possible barrows' are added:

For 1428 sites: 0.37 sites per sq. km. = 0.97 sites per sq. mile

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APPENDIX 2.2. CROPMARK SITES; AN UP-DATED LIST FOR THE SUTTON WEDGE

Rectangular ditched enclosures, List 1 (3), List 6 (1), List 9 (5),
List 10 (20), List 11 (3), List 12 (12), List 13 (3), List 14 (18),
List 15 (9), List 16 (15).

Total 89

Circular/sub-circular enclosures, List 26 (4), List 28 (21).

Total 25

'Regular' ditched enclosures, List 29 (6), List 30 (7), List 31 (4),
List 32 (13).

Total 30

Oval ditched enclosures, List 33 (3), List 34 (4), List 35 (11).

Total 18

Curvilinear ditched enclosures, List 36 (9), List 37 (13),
List 38 (5), List 39 (17).

Total 44

Long barrows, List 17 (5), possible henges, List 18 (3) Total 8

Round barrows, List 19 (31), List 20 (43), List 21 (282) Total 356

Possible hillforts, unlisted (1) Total 1

Total of sites 571

Total with 'possible barrows' (macula) added, List 51 (111) 682

The Sutton Wedge has an area of 257 sq. km. = 99 sq. miles. This represents 6.75% of the Kent land area, containing 44.7% of all sites (47.0% with possible barrows added). About 23 sq. km. of the area is masked by the conurbations of Deal, Dover, and part of Canterbury, giving a cropmark display area of 234 sq. km. = 90.3 sq. miles, so that the density of prehistoric sites recorded by aerial photography is:

For 571 sites, 2.4 sites per sq. km. = 6.3 sites per sq. mile.

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For 682 sites, 2.9 sites per sq. km. = 7.5 sites per sq. mile.

APPENDIX 2.3. CROPMARK SITES; AN UP-DATED LIST FOR THE ISLE OF THANET

Rectangular ditched enclosures, List 1 (1), List 6 (2), List 7 (1),
List 8 (3), List 9 (3), List 10 (17), List 11 (5), List 12 (21),
List 13 (4), List 14 (7), List 15 (4), List 16 (10).

Total 78

Circular/sub-circular enclosures, List 26 (2), List 28 (11).

Total 13

'Regular' ditched enclosures, List 31 (1), List 32 (4).

Total 5

Oval ditched enclosures, List 34 (1), List 35 (4).

Total 5

Curvilinear ditched enclosures, List 36 (2), List 37 (4),
List 38 (5), List 39 (4).

Total 15

Long barrows, List 17 (4), possible henges, List 18 (7) Total 11

Round barrows, List 19 (18), List 20 (21), List 21 (276)

+ new TSMR entries to KSMR (65) Total 380

Possible hillforts, unlisted, (2) Total 2

Total of sites 509

Total with 'possible barrows' (macula) added, List 51 (67) 576

The Isle of Thanet, 'uplands' land area is 85.4 sq. km. = 33 sq. miles*.

This represents 2.25 % of the Kent land area, containing 40.7% of all 'prehistoric' cropmark sites (40.3% with possible barrows added). In calculating the density of sites the masked areas must be taken into account. These consist of the conurbation of Broadstairs, Margate and Ramsgate, largely built over before aerial photography, and Manston Aerodrome with concrete

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runways and under-grass reinforcing where aerial photography is forbidden. This leaves a cropmark display area of 64.5 sq. km. = 25 sq. miles. So the density of prehistoric sites recorded by aerial photography is:

For 509 sites, 7.8 sites per sq. km. = 20.3 sites per sq. mile.

For 576 sites, 8.9 sites per sq. km. = 23.0 sites per sq. mile.

*The modern land area of Thanet is 103.6 sq. km. = 40 sq. miles. Some of this is the alluvial plain of the former Wantsum sea channel and not much above sea level. Any shoreline prehistoric sites will have been inundated by Roman times and cannot show prehistoric site cropmarks as they are now under at least 1.5 m. of alluvium. Only that area of the island that is above the Wantsum plain drainage system can be used to calculate site density.

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APPENDIX 2.4. TABLE 1: THE DISTRIBUTION OF PREHISTORIC CROPMARK SITES IN KENT

List No.	Type of Site	In Sutton Wedge	In Isle of Thanet	In rest of Kent
1	Square barrows (Iron Age)	3 = 50%	1 = 16%	2 = 33%
5	Square enclosed settlements with entrance and interior features	- -	- -	1 = 100%
6	Square enclosed settlements with interior features only	1 = 33%	2 = 66%	- -
7	Square enclosed settlements with entrance only	- -	1 = 50%	1 = 50%
8	Square enclosed settlements with no entrance or internal features	- -	3 = 75%	1 = 25%
9	Rectangular enclosed settlements with entrance and internal features	5 = 45%	3 = 27%	3 = 27%
10	Rectangular enclosed settlements with internal features only	20 = 41%	17 = 35%	11 = 23%
11	Rectangular enclosed settlements with entrance only	3 = 20%	5 = 33%	7 = 46%
12	Rectangular enclosed settlements with no entrance or internal features	12 = 28%	21 = 50%	9 = 21%
13	Polygonal enclosed settlements with entrance and internal features	3 = 37%	4 = 50%	1 = 12%
14	Polygonal enclosed settlements with internal features only	18 = 60%	7 = 23%	5 = 16%
15	Polygonal enclosed settlements with entrance only	9 = 56%	4 = 25%	3 = 18%
16	Polygonal enclosed settlements with no entrance or internal features	15 = 57%	10 = 38%	1 = 4%
17	Long barrows or similar enclosures	5 = 38%	4 = 30%	4 = 30%
18	Possible henges	3 = 27%	7 = 63%	1 = 9%

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	<i>Appendix 2.4. Table 1 continued</i>			
List No.	Type of Site	In Sutton Wedge	In Isle of Thanet	In rest of Kent
19	Concentric ring ditches round former barrows	31 = 62%	18 = 36%	1 = 2%
20	Single-circuit ring ditches with internal features	43 = 59%	21 = 28%	9 = 12%
21	Single-circuit ring ditches without internal features	282 = 45%	276 = 44%	
24	Possible hut circles	37 = 67%	3 = 5%	15 = 27%
25	Circular/sub-circular enclosures with internal features and entrances	- -	- -	1 = 100%
26	Circular/sub-circular enclosures with internal features only	4 = 66%	2 = 33%	- -
27	Circular/sub-circular enclosures with entrance only	- -	- -	3 = 100%
28	Circular/sub-circular enclosures with no internal features or entrances	21 = 41%	11 = 21%	19 = 37%
29	Regular enclosed settlements with internal features and entrances	6 = 100%	- -	- -
30	Regular enclosed settlements with internal features only	7 = 100%	- -	- -
31	Regular enclosed settlements with entrance only	4 = 80%	1 = 20%	- -
32	Regular enclosed settlements with no internal features or entrances	13 = 54%	4 = 16%	7 = 29%
33	Oval enclosed settlements with internal features only	3 = 100%	- -	- -
34	Oval enclosed settlements with entrance only	4 = 66%	1 = 16%	1 = 16%
35	Oval enclosed settlements without internal features or entrances	11 = 55%	4 = 20%	5 = 25%
36	Curvilinear asymmetric settlements with internal features and entrances	9 = 81%	2 = 18%	- -
37	Curvilinear asymmetric settlements with internal features only	13 = 61%	4 = 19%	4 = 19%
38	Curvilinear asymmetric settlements with	5 = 41%	4 = 41%	2 = 16%

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	entrance only			
39	Curvilinear asymmetric settlements without entrances or internal features	17 = 56%	4 = 13%	9 = 30%
51	Possible barrow sites (macula)	111 = 62%	67 = 37%	1 = 0.5%
	Unlisted: Possible hillforts	1 = 33%	2 = 66%	- -
	Totals:	682 = 50%	511 = 37%	170 = 12%

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APPENDIX 3.1: THE MONKTON REPLICA BARROW EXPERIMENT

This has been built on chalk downland within the Monkton Nature Reserve, Monkton, Thanet, in an area of open scrub. It is intended for long term environmental research, although the record of problems encountered and labour expended has provided data of value. As planned, see Fig. 3.6, the barrow consists of a ring-ditch 12.0 m. in diameter, and a central mound raised from excavated chalk. Some of this material was used to make lengths of internal and external bank. The ditch sectional profile has been varied, segments having V, truncated-V, and U sections. Thus in designing the barrow, the writer has attempted to duplicate most variations in prehistoric barrow construction and to match each to Thanet's weather pattern of prevailing wet south-westerlies, and freezing mid-winter north-easterlies.

The design objective was to throw light on observed evidence from barrow excavation in the east Kent area. Ditch sections have shown variations in fill composition and primary silting, 'flow lines', and 'weathered crusts', and have yielded sub-fossil molluscan populations that are open to environmental interpretation. Excavators have had to speculate on the following lines:

Does the strata suggest the fairly rapid collapse of inner or outer concentric banks, or the long term erosion of a central mound?

To what extent does ditch infilling depend on bank/mound erosion rather than turf formation and wind-blown deposits, and how long does the process take?

To what extent does a ditch's snail population reflect the surrounding environment? Does the dominant presence of shade loving species mean woodland nearby, or merely that a part-infilled ditch is a moist and shady micro-environment?

Monitoring the replica during the next two centuries should provide some answers, although the writer hopes that some will emerge during his lifetime.

Execution of the replica design required the excavation and removal to mound and bank of 21.2 cubic metres of chalk. This was carried out by the efforts of two robust young male volunteers who were employed on the task for 600 man hours. It has been pointed out that this seems slow progress in that the hourly rate of chalk extraction for each worker over the whole period was only 0.035 cubic metres (about a cubic foot). Can their labour be compared with that of prehistoric workmen?

Admittedly the volunteers had taken on the project 'for fun', and worked at what speed they chose, but on the other hand, they had the tremendous advantage of steel tools and wheelbarrows. Their rate of chalk extraction must be considered in terms of the overall task. Firstly, the barrow area had to be cleared of brush. Then, when the ditch circle had been marked out, about 12.0 cubic metres of turf and topsoil to a depth of 0.25 m. had to be taken

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up to expose the chalk. Initially chalk extraction was speedy, but as the ditch deepened more time had to be expended in getting the curve and section of the ditch right and shaping the mound. Eventually, as the ditch profile narrowed, use of spade and pick had to give way to small hand tools. The workforce had to divide, with one cutting the ditch and passing up spoil for the other to remove.

In summary, it seems probable that what the construction team may have lacked in sense of urgency was more than compensated by their possessing steel tools, wheelbarrows and buckets. Could prehistoric labourers have done better with flint mattocks, deer-antler picks, and rush baskets?

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APPENDIX 3.2: A CORPUS OF NEOLITHIC/BRONZE AGE RING DITCHES (ROUND BARROWS) EXCAVATED IN KENT TO 1993

The ring ditches are numbered as shown in Fig. 3.1 where they are arranged in order of diameter. Ordnance Survey co-ordinates for Lord of the Manor (L.O.M.) Ramsgate, sites I to VI are identical as they are grouped within 100 m.

No. 1. Monkton, Thanet. OS ref.: TR 289656. Type: ?Henge. Diameter m.: 40+ and 32

Ditch sections: truncated-V = U. Widths: 3.0 m. and 1.0 m. Depths: 2.0 m. and 0.6 m.

Ditches sectioned in 1992 ahead of highway development (Perkins 1993, unpublished report to Kent County Council).

Round, double concentric ditches. Heavy plough attrition with total loss of ancient horizons and perhaps 0.40 m. of chalk bedrock. Cropmarks of two similar sites nearby have causeway entrances.

No. 2. Lord of the Manor, Ramsgate V (LOM V). OS ref.: TR 355653. Type: ?Henge.

Diameter: 32.5 m. Ditch section: truncated-V. Width: 3.8 m. Depth: 1.6 m.

Excavated 1981 (Perkins unpublished)

Round, ploughed off, off centre ox burial, small central 'charnel-pit' contained selected remains of five persons. Spaced re-cuts to ditch fill and sides. Thought to have been a small henge converted to a barrow with a small low mound which was just visible in 1978. Roman chalk pit cutting the ditch may have destroyed an entrance causeway.

No. 3. L.O.M. I. OS. ref. TR 355653. Diameter: 30 m. + 19 m. + 12 m. Type: ?Henge.

Ditch section: truncated-V x 3. Widths: 3.0 m., 2.0 m., 1.5 m. Depths: 1.5 m., 1.2 m., 0.8 m.

Excavated 1976 (N. Macpherson-Grant 1976 interim)

Round, triple ditched, ploughed off. Outer ditch thought to pre-date inner ditches as an enclosure with causeway entrance, later slighted. Central grave pit with double crouched burial and burials in inner ditch fills. Cremation in urn with tanged and barbed arrowhead

No. 4. Holborough OS ref.: TQ 696625. Diameter: 30.0 m. Type: ?Barrow.

Ditch section: truncated-V. Width: 4.0 m. Depth: 1.9 m.

Excavated 1953 (V. Evison 1956)

Round, no internal features, no trace of mound (ploughed off?) but no Saxon graves from surrounding cemetery within ditch.

No. 5 L.O.M. III OS ref. TR 355653 Diameter: 30.0 m. Type: ?Henge

Ditch section: truncated-V Width: 3.0 m. Depth: 1.7 m.

Excavated 1977 (Perkins 1981, interim)

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Round, single ditch, causeway entrance, ploughed off. Collared urn burial at centre, spaced recuts to ditch fill and sides. Ditch had been excavated into causeway narrowing it from 4.0 to 0.60 m. Decreasing depths of intrusive AS burials indicated central mound. Interpreted as a small henge, abandoned, then converted to barrow when ditch ® infilled.

No. 6. L.O.M. VIII. OS ref.: TR 350652. Diameter: 30.0 m. Type: ?Henge

Ditch section: truncated-V. Width: 3.7 m. Depth: 1.1 m.

Part excavated 1985 (Perkins unpublished)

No internal features

No. 7 Bradstowe school, Broadstairs OS ref.: TR 395673. Diameter: 25.0 m and 12.0 m.

Type: ?Barrow. Ditch sections: truncated-V + U. Widths: 2.2 m. and 1.2 m.

Depths: 1.5 m. and 0.80 m.

Excavated 1911 (H. Hurd 1913)

Round, double concentric ditches, no internal features, crouched burials in ditch fills.

No. 8 L.O.M. II D OS ref.: TR 355653. Diameter: 23.0 m. Type: ?Henge

Ditch section: truncated-V. Width: 4.0 m. Depth: 1.6 m.

Excavated 1976 (N. Macpherson-Grant 1981 interim)

Round, single ditch with a-series of slots cut into the floor and slot areas marked out but not cut. Causeway entrance, and central pentagonal structure with ?entrance corridor formed by post holes (rebut). The pentagon framed a hearth, and both it and the post holes were sealed under a horizon containing a crouched burial. Interpreted as a small henge re-used for burials in the Early Bronze Age but no evidence for a mound.

No. 9 Northdown, Margate . OS ref.: TR 385704 Diameter: 22.0 m. Type: ?Barrow

Ditch section: truncated-V. Width: 3.0 m. Depth: 1.5 m.

Excavated 1984 (G. Smith 1987)

Sub-circular, no prehistoric internal features, evidence for an external bank, beaker and Late Bronze Age sherds. Site interpreted as a disc barrow.

No. 10 Castle Hill, Folkestone (a). OS ref. TR 214377. Diameter: 21.0 m. Type: ?Barrow

Ditch section: truncated-V. Width: 2.0 m. Depth: 0.60 m.

Excavated 1991 (J.Rady 1993)

Round with causeway entrance, crouched burials, beaker sherds

No. 11 Castle Hill, Folkestone (c). OS ref.: TR 214377 Diameter: 21.0 m. Type: ?Barrow

Ditch section: truncated-V. Width: 3.0 m. Depth: 1.2 m.

Excavated 1991 (J.Rady 1993)

Oval, incomplete circuit respects ditch of 10 (Site 104), no internal features.

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No. 12 L.O.M. VI. OS ref.: TR 355653 Diameter: 20.0 m. Type: ?Pond barrow

Ditch section: truncated-V Width: 4.0 m. Depth: 1.4 m.

Excavated 1982 (Perkins unpublished)

Round, single ditch, centre has shallow bowl-shaped pit. Collared urn buried just within ditch is evidence for inner bank. Interpreted as pond barrow.

No. 13. Ringwould I. OS ref.: TR 364470. Diameter: 20.0 m. Type: Barrow

Ditch not excavated

Excavation of mound only 1872 (C.H. Woodruff 1872)

Round, surviving mound, primary cremation in collared urn, secondary cremations in inverted urns, one biconical with slotted incense cup.

No. 14 Ringwould II OS ref.: TR 364470 Diameter: 20.0 m. Type: ?non-funerary barrow

Ditch not excavated.

Excavation of mound only 1872 (C.H. Woodruff 1872)

No internal features

No. 15 Castle Hill, Folkestone (b). OS ref.: TR 214377. Diameter: 20.0 m.

Type: ?non-funerary barrow Ditch section: truncated-V Width: 2.3 m. Depth: 1.5 m.

Excavated 1991 (J. Rady 1993)

No internal features

No. 16 Bucklands, Dover OS ref.: TR 310430 Diameter: 20.0 m. Type: ?non-funerary barrow.

Ditch section: truncated-V Width: 1.2 m. Depth: 0.80 m.

Excavated 1951 (Evison 1987)

No internal features

No. 17 Bridge by-pass (Barham Down) OS ref.: TR 193532 Diameter: 19.0 m. Type: Barrow

Ditch section: truncated-V Width: 2.1 m. Depth: 0.90 m.

Excavated 1974 (Macpherson-Grant 1980)

Round, 10 (presumed secondary) Late Bronze Age cremations, 5 in urns.

No. 18 Shorne OS ref.: TQ 680716 Diameter: 18.6 m. Type: Barrow

Ditch section: truncated-V Width: 4.0 m. Depth: 2.0 m.

Excavated 1899 (G. Payne 1900)

Round, central crouched burial, others in ditch

No. 19 King Edward Av. Broadstairs OS ref.: TR 394675 Diameter: 17.5 m. + 11.6 m.

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Type: ?Barrow Ditch section: V + truncated-V Widths: 1.0 and 1.7 m.

Depths: 0.7 and 0.8 m.

Excavated 1909 (Hurd 1913)

Double concentric ditches, central cist with Late Bronze Age urn (inverted)

No. 20 St Peter's AS cem., Broadstairs. OS ref.: TR 377693 Diameter: 16.5 m. Type: Barrow

Ditch section: truncated-V Width: 2.0 m. Depth: 1.5 m.

Excavated 1970 (Hogarth 1973)

Oval, ditch cut pit containing beaker burial, other beaker sherds found.

No. 21 L.O.M. II b)c) OS ref.: TR 355653 Diameter 15.0 m. (re-cut) Type: ?non-funerary

Ditch sections: truncated-V x 2 Width: 2.5 m. Depth: 0.80 m.

Excavated 1976 (Macpherson Grant 1981)

Round, single ditch (re-cut), ploughed off, no internal features.

No. 22 L.O.M. IV OS ref.: TR 355653 Diameter: 15.0 m. Type: Barrow

Ditch section: V Width: 1.0 m. Depth: 1.0 m.

Excavated 1978 (Perkins 1981)

Oval, ploughed off, uncontained cremation with incense cup.

No. 23 Wouldham, Hill Road OS ref.: TQ 724644 Diameter: 13.0 m. Type: Barrow

Ditch section: truncated-V Width: 2.0 m. Depth: 1.8 m.

Excavated 1982 (Cruse and Harrison 1983)

Oval, wide causeway entrance, cremation in biconical urn, secondary burial.

No. 24 L.O.M. IIa) OS ref.: TR 355653 Diameter: 12.0 m. Type: ?non-funerary

Ditch section: U Width: 1.6 m. Depth: 1.2 m.

Excavated 1976 (Macpherson Grant 1981)

Oval, ploughed off, no internal features, deliberate backfill of ditch suspected

No. 25 Manston (L.O.M. VII) OS ref.: TR 351652 Diameter: 11.7 m. Type: Barrow

Ditch section: truncated-V Width: 1.1 m. Depth: 0.50 m.

Excavated 1987 (Perkins 1990)

Oval, ploughed off, beaker burial (long-necked) with flint knife and jet button. Secondary burial. Radiocarbon estimation for burial is c. 2000 BC \pm 50

No. 26 Dumpton Gap, Broadstairs OS ref.: TR 395664 Diameter: 10.0 m. Type: ?non-funerary

Ditch section: truncated-V Width: 1.5 m. Depth: 1.5 m.

Excavated 1907 (Hurd 1909)

Round, no internal features

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No. 27 L.O.M. IX OS ref.: TR 350652 Diameter: 10.0 m. Type: ?non-funerary

Part excavated 1987 (Perkins unpublished)

Round, ploughed off, no internal features. Examined without ditch excavation during emergency evaluation work.

No. 28 St Nicholas at Wade, Thanet. OS ref.: TR 253671 Diameter: 9.8 m.

Type: ?non-funerary Ditch section: truncated-V. Width: 1.2 m. Depth: 0.35 m.

Part excavated 1987 (Perkins interim 1987)

Round, ploughed off, no internal features but severe plough damage.

The following is almost certainly a round barrow, diameter reconstructed from four sections over

20 m. (about 1/3 of probable circuit. Not illustrated in Fig.

No. 29 North Foreland Av. Broadstairs. OS ref.: TR 399692 Diameter: ?24.0

Ditch section: truncated-V Width 1.4 m. Depth: 1.0 m.

?Central feature held 'Pigmy Urn'. Crouched burials and intrusive 'Marnian' burials (Perkins 1981).

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APPENDIX 3.3: LISTS OF BARROW CEMETERIES AND GROUPS IN KENT:

LIST 1: THE BARROW CEMETERIES

Barrow Cemetery List No. 1 Location TR 3565 District: Ramsgate

Name: Ozengell - Lord of the Manor Morphology: linear

Number of barrows: 27 Area (ha): 33 Concentration barrows/ha: 0.80

Relative magnitude: 7 Orientation: NW - SE

Comments: Follows south-west facing downland ridge and crest for 1200 m. At least six henge-type monuments.

Barrow Cemetery List No. 2 Location TR 2566 District: Birchington

Name: St. Nicholas Court Farm Morphology: area

Number of barrows: 18 Area (ha): 33 Concentration barrows/ha: 0.53

Relative magnitude: 4 Orientation: estimated as NW - SE

Comments: Possibly many more barrows at one time as site suffers acute plough attrition

Barrow Cemetery List No. 3 Location TR 2865 District: Monkton

Name: Seamark Hill Morphology: area (see below)

Number of barrows: 33 Area (ha): 46 Concentration barrows/ha: 0.70

Relative magnitude: 10 Orientation: estimated as WNW - ESE

Comments: This cemetery is connected to the Mount Pleasant cemetery by an attenuated linear group (List II, 1), distributed along both sides of a linear cropmark thought to represent a cursus.

Barrow Cemetery List No. 4 Location TR 3065 District: Minster

Name: Mount Pleasant, Minster, Thanet Morphology: area

Number of barrows: 13 Area (ha): 26 Concentration barrows/ha: 0.48

Relative magnitude: 3 Orientation: N - S

Comments: i) See 3 above. ii) Cemetery divides into two distinct clusters (?cut by the cursus), and the upper hilltop cluster appears to be superimposed on a field system.

Barrow Cemetery List No. 5 Location TR 2868 District: Birchington

Name: Upper Gore Farm Morphology: area

Number of barrows: 10 Area (ha): 4.5 Concentration barrows/ha: 2.2

Relative magnitude: 1 Orientation: estimated as WNW - ESE

Comments: i) Two double concentric ditches, pairs of barrows joined by single and double linear marks. ii) Cemeteries 5, 6 and 7 are so close with intervening groups and single barrows that it is tempting to consider them as one super cemetery.

Barrow Cemetery List No. 6 Location TR 2968 District: Birchington

Name: Great Brooksend Farm Morphology: linear

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Number of barrows: 15 Area (ha): 8 Concentration barrows/ha: 1.8

Relative magnitude: 1 Orientation: WNW - ESE

Comments: see 5, ii)

Barrow Cemetery List No. 7 Location TR 2967 District: Birchington

Name: Crispe Farm Morphology: area

Number of barrows: 10 Area (ha): 1.5 Concentration barrows/ha: 6.6

Relative magnitude: 1 Orientation: -

Comments: Associated enclosure ditch system

Barrow Cemetery List No. 8 Location TR 3469 District: Margate

Name: Westbrook Morphology: area

Number of barrows: 7 Area (ha): 3 Concentration barrows/ha: 2.3

Relative magnitude: 1 Orientation: NW - SE

Comments: Associated group (List II, 5) includes a ring ditch of 50 m. diameter.

Barrow Cemetery List No. 9 Location TR 3267 District: Birchington

Name: Woodchurch, Acol Morphology: area

Number of barrows: 9 Area (ha): 6 Concentration barrows/ha: 1.5

Relative magnitude: 1 Orientation: - Comments: -

Barrow Cemetery List No. 10 Location TR 3066 District: Birchington

Name: Plumstone Farm, Acol Morphology: area

Number of barrows: 10 Area (ha): 3.7 Concentration barrows/ha: 2.6

Relative magnitude: 1 Orientation: NW - SE

Comments: Henge-type ring ditches present

Barrow Cemetery List No. 11 Location TR 3669 District: Margate

Name: Updown Farm Morphology: area

Number of barrows: 10 Area (ha): 7 Concentration barrows/ha: 1.4

Relative magnitude: 1 Orientation: NNE - SSW Comments: -

Barrow Cemetery List No. 12 Location TR 3567 District: Ramsgate

Name: Lydden Morphology: area

Number of barrows: 6 Area (ha): 5.2 Concentration barrows/ha: 1.1

Relative magnitude: 1 Orientation: NE - SW

Comments: One barrow retains vestigial mound

Barrow Cemetery List No. 13 Location TR 3769 District: Margate

Name: Millmead - St. Peter's Morphology: area

Number of barrows: 15 Area (ha): 31 Concentration barrows/ha: 0.47

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Relative magnitude: 4 Orientation: - Comments: It is possible that but for railway construction, land-infill, and overbuild, this cemetery would be observed as linked with Updown Farm (11) and East Northdown Farm forming a super-cemetery.

Barrow Cemetery List No. 14 Location TR 3870 District: Margate

Name: East Northdown Morphology: area

Number of barrows: 15 Area (ha): 24 Concentration barrows/ha: 0.62

Relative magnitude: 3 Orientation: -

Comments: i) see List No. 13 comments. ii) in a landscape with enclosures and ?long barrows.

Barrow Cemetery List No. 15 Location TR 3468 District: Margate

Name: Hengrove Morphology: area

Number of barrows: 5 Area (ha): 10 Concentration barrows/ha: 0.5

Relative magnitude: 1 Orientation: -

Barrow Cemetery List No. 16 Location TR 3165 District: Minster

Name: Telegraph Hill, Minster, Thanet Morphology: area

Number of barrows: 14 Area (ha): 50 Concentration barrows/ha: 0.28

Relative magnitude: 5 Orientation: -

Comments: Large attenuated cemetery follows line of Nos. 3, (List II,1), 4, or perhaps 'Dunstrete' (the A253) an ancient track

Barrow Cemetery List No. 17 Location TR 3168 District: Birchington

Name: Quex Park Morphology: area

Number of barrows: 7 Area (ha): 14 Concentration barrows/ha: 0.5

Relative magnitude: 1 Orientation: -

Comments: One mound survives in woodland as a result of eighteenth century landscaping.

Barrow Cemetery List No. 18 Location TR 2766 District: Birchington

Name: St Nicholas Corner Morphology: area

Number of barrows: 5 Area (ha): 3 Concentration barrows/ha: 1.6

Relative magnitude: 1 Orientation:

Barrow Cemetery List No. 19 Location TR 2054 District: Bekesbourne

Name: Shepherds Close Morphology: area

Number of barrows: 6 Area (ha): 5 Concentration barrows/ha: 1.1

Relative magnitude: 1 Orientation: estimated as NNE - SSW

Barrow Cemetery List No. 20 Location TR 2850 District: Eythorne

Name: Elvington Morphology: linear

Number of barrows: 7 Area (ha): 1 Concentration barrows/ha: 5.3

Relative magnitude: 1 Orientation: NNE - SSW

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Comments: Very tight linear group, Saxon barrows also present

Barrow Cemetery List No. 21 Location TR 3354 District: Finglesham

Name: West Street Morphology: area

Number of barrows: 8 Area (ha): 3.5 Concentration barrows/ha: 2.2

Relative magnitude: 1 Orientation: NNE - SSW

Comments: Four rings of about 30 m. diameter, one triple ring of 40 m. diameter

Barrow Cemetery List No. 22 Location TR 3253 District: Finglesham

Name: Updown Farm Morphology: area

Number of barrows: 6 Area (ha): 8 Concentration barrows/ha: 0.75

Relative magnitude: 1 Orientation: -

Comments: Three close groups form a triangle, one ring of 50 m. dia

Barrow Cemetery List No. 23 Location TR 3053 District: Eastry

Name: Venson Farm Morphology: linear

Number of barrows: 5 Area (ha): 2 Concentration barrows/ha: 2.3

Relative magnitude: 1 Orientation: NW - SE

Barrow Cemetery List No. 24 Location TR 3050 District: Tilmanstone

Name: Barville Farm Morphology: linear

Number of barrows: 7 Area (ha): 3 Concentration barrows/ha: 2.1

Relative magnitude: 1 Orientation: NE - SW

Comments: Associated field or enclosure ditch system

Barrow Cemetery List No. 25 Location TR 3547 District: Ringwould

Name: Martin Mill Morphology: linear

Number of barrows: 6 Area (ha): 1.7 Concentration barrows/ha: 3.4

Relative magnitude: 1 Orientation: E - W

Barrow Cemetery List No. 26 Location TR 3546 District: Ringwould

Name: Oxney Court Morphology: geometric

Number of barrows: 8 Area (ha): 9 Concentration barrows/ha: 0.9

Relative magnitude: 1 Orientation: NNE - SSW

Comments: All ring ditches appear to be 40 m. or more in diameter, they are arranged in two diverging lines of pairs.

Barrow Cemetery List No. 27 Location TR 3049 District: Eythorne

Name: West Studdel Farm Morphology: linear

Number of barrows: 6 Area (ha): 4 Concentration barrows/ha: 1.5

Relative magnitude: 1 Orientation: NE - SW

Barrow Cemetery List No. 28 Location TR 3449 District: Sutton

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Name: Ripple Court Morphology: area
Number of barrows: 5 Area (ha): 3 Concentration barrows/ha: 1.6
Relative magnitude: 1 Orientation: N - S

Barrow Cemetery List No. 29 Location TR 3148 District: Sutton

Name: Ashley Morphology: linear
Number of barrows: 6 Area (ha): 1 Concentration barrows/ha: 6
Relative magnitude: 1 Orientation: NE - SW

Barrow Cemetery List No. 30 Location TR 3346 District: Langdon

Name: Langdon Morphology: linear
Number of barrows: 5 Area (ha): 5.5 Concentration barrows/ha: 0.9
Relative magnitude: 1 Orientation: NNE - SSW

Barrow Cemetery List No. 31 Location TR 3445 District: Langdon Name: Sutton Manor

Farm Morphology: linear
Number of barrows: 5 Area (ha): 1.5 Concentration barrows/ha: 3.3
Relative magnitude: 1 Orientation: N - S

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APPENDIX 3.3: LIST 2 THE BARROW GROUPS OF KENT

Barrow Group List No. 1 Location TR 2965 District: Thanet
Name: Monkton - Minster Morphology: attenuated linear
Number of barrows: 12 Area (ha): 33 Concentration barrows/ha: 0.36
Relative magnitude: 7 Orientation: E - W Comments: i) see comments for cemeteries 3 and 4 in List I. ii) four of the sites show as maculae, since plough attrition in the locality makes mound survival impossible these are probably pond barrows.

Barrow Group List No. 2 Location TR 2869 District: Birchington
Name: Minnis Bay Morphology: area
Number of barrows: 4 Area (ha): 3 Concentration barrows/ha: 0.75
Relative magnitude: 1 Orientation: E -W

Barrow Group List No. 3 Location TR 2967 District: Birchington
Name: Brooksend Morphology: area
Number of barrows: 4 Area (ha): 1.5 Concentration barrows/ha: 2.6
Relative magnitude: 1 Orientation: -

Barrow Group List No. 4 Location TR 3564 District: Ramsgate
Name: Little Cliffsend Farm Morphology: linear
Number of barrows: 3 Area (ha): 1.75 Concentration barrows/ha: 1.7
Relative magnitude: 1 Orientation: NE - SW
Comments: Two maculae also present, ?pond barrows.

Barrow Group List No. 5 Location TR 3469 District: Margate
Name: Westbrook Morphology: area
Number of barrows: 4 Area (ha): 2 Concentration barrows/ha: 2
Relative magnitude: 1 Orientation: NW - SE
Comments: One incomplete ring ditch of 50 m. diameter

Barrow Group List No. 6 Location TR 3469 District: Margate
Name: Half Mile Ride Morphology: area
Number of barrows: 1 Area (ha): 8 Concentration barrows/ha: 0.6
Relative magnitude: 1 Orientation: NW - SE
Comments: Associated Jutish cemetery re-using two barrows

Barrow Group List No. 7 Location TR 3870 District: Margate
Name: East Northdown Morphology: linear
Number of barrows: 3 Area (ha): 5 Concentration barrows/ha: 0.6
Relative magnitude: 1 Orientation: NE - SW

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Barrow Group List No. 8	Location TR 3870	District: Margate
Name: George Hill, Northdown	Morphology: area	
Number of barrows: 3	Area (ha): 1	Concentration barrows/ha: 3
Relative magnitude: 1	Orientation: -	
Barrow Group List No. 9	Location TR 3870	District: Margate
Name: White Ness, Kingsgate	Morphology: area	
Number of barrows: 4	Area (ha): 8	Concentration barrows/ha: 0.5
Relative magnitude: 1	Orientation: -	
Barrow Group List No. 10	Location TR 3969	District: Broadstairs
Name: North Foreland, Kingsgate	Morphology: area	
Number of barrows: 4	Area (ha): 5	Concentration barrows/ha: 0.8
Relative magnitude: 1	Orientation: -	
Comments: Associated with large multivalatte hilltop enclosure. Much of the area masked by pre-air photo development.		
Barrow Group List No. 11	Location TR 3768	District: Broadstairs
Name: Dane Court, St. Peter's	Morphology: area	
Number of barrows: 7	Area (ha): 18	Concentration barrows/ha: 0.38
Relative magnitude: 1	Orientation: -	
Barrow Group List No. 12	Location TR 3766	District: Ramsgate
Name: Hollicondane	Morphology: area	
Number of barrows: 3	Area (ha): 8	Concentration barrows/ha: 0.37
Relative magnitude: 1	Orientation: -	
Comments: Middle Bronze Age bronzes, burials, settlement finds nearby.		
Barrow Group List No. 13	Location TR 3665	District: Ramsgate
Name: Nethercourt Farm	Morphology: linear	
Number of barrows: 4	Area (ha): 3	Concentration barrows/ha: 1.3
Relative magnitude: 1	Orientation: N - S	
Barrow Group List No. 14	Location TR 3565	District: Ramsgate
Name: east end of runway, Manston Airfield	Morphology: area	
Number of barrows: 3	Area (ha): 4	Concentration barrows/ha: 0.75
Relative magnitude:	Orientation: -	
Comments: one beaker barrow, one henge-type, one non-funerary.		
Barrow Group List No. 15	Location TR 3268	District: Margate
Name: Shottendane, Garlinge	Morphology: area	
Number of barrows: 10	Area (ha): 50	Concentration barrows/ha: 0.2

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Relative magnitude: 10 Orientation: -

Barrow Group List No. 16 Location TR 3167 District: Birchington

Name: Acol Hill, Acol Morphology: linear

Number of barrows: 5 Area (ha): 5 Concentration barrows/ha: 1.0

Relative magnitude: 1 Orientation: NE - SW

Barrow Group List No. 17 Location TR 3169 District: Birchington

Name: King Ethelbert School Morphology: area

Number of barrows: 3 Area (ha): 1 Concentration barrows/ha: 3.0

Relative magnitude: 1 Orientation: -

Barrow Group List No. 18 Location TR 3066 District: Birchington

Name: Cleve Court, Acol Morphology: linear

Number of barrows: 3 Area (ha): 2 Concentration barrows/ha: 1.5

Relative magnitude: 1 Orientation: E - W

Barrow Group List No. 19 Location TR 2968 District: Birchington

Name: Brooksend Hill Morphology: linear

Number of barrows: 3 Area (ha): 3 Concentration barrows/ha: 1.0

Relative magnitude: 1 Orientation: NW - SE

Comments: i) Associated with List I cemeteries 5, 6, and 7 in a single linear arrangement. ii) Maculae present.

Barrow Group List No. 20 Location TR 2767 District: Birchington

Name: Shuart Farm, St Nicholas-at-Wade Morphology: linear

Number of barrows: 3 Area (ha): 3 Concentration barrows/ha: 1.0

Relative magnitude: 1 Orientation: NW - SE

Barrow Group List No. 21 Location TR 2665 District: Birchington

Name: Down Barton Farm, St Nicholas Morphology: area

Number of barrows: 3 Area (ha): 1 Concentration barrows/ha: 1.0

Relative magnitude: 1 Orientation: -

Barrow Group List No. 22 Location TR 2665 District: Birchington

Name: St Nicholas Lodge Morphology: area

Number of barrows: 3 Area (ha): 2 Concentration barrows/ha: 1.5

Relative magnitude: 1 Orientation: -

Barrow Group List No. 23 Location TR 2055 District: Bokesbourne

Name: Chalkpit Farm Morphology: area

Number of barrows: 5 Area (ha): 10 Concentration barrows/ha: 0.49

Relative magnitude: 2 Orientation: -

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Comments: Other barrows present but almost certainly A. Saxon.

Barrow Group List No. 24 Location TR 2354 District: Adisham

Name: Basington Morphology: area

Number of barrows: 5 Area (ha): 9 Concentration barrows/ha: 0.54

Relative magnitude: 1 Orientation: NNE - SSW

Barrow Group List No. 25 Location TR 2053 District: Kingston

Name: Coldharbour Farm Morphology: area

Number of barrows: 3 Area (ha): 0.25 Concentration barrows/ha: 12

Relative magnitude: 1 Orientation: -

Comments: very tight small group

Barrow Group List No. 26 Location TR 2152 District: Kingston

Name: Ileden Morphology: linear

Number of barrows: 3 Area (ha): 4.5 Concentration barrows/ha: 0.66

Relative magnitude: 1 Orientation: NE - SW

Comments: Three large ring ditches, two of 20 m. diameter, one of 50 m.

Barrow Group List No. 27 Location TR 2349 District: Barham

Name: Dennehill Farm Morphology: linear

Number of barrows: 4 Area (ha): 4 Concentration barrows/ha: 1.0

Relative magnitude: 1 Orientation: NE - SW

Comments: One ring ditch of 50 m. diameter

Barrow Group List No. 28 Location TR 2952 District: Tilmanstone

Name: Thornton Farm Morphology: area

Number of barrows: 3 Area (ha): 10 Concentration barrows/ha: 0.3

Relative magnitude: 1 Orientation: NE - SW

Comments: Three barrows associated with a double ring ditch enclosure of 200 m. diameter with a causeway entrance

Barrow Group List No. 29 Location TR 2852 District: Tilmanstone

Name: Kittington Morphology: area

Number of barrows: 4 Area (ha): 1.2 Concentration barrows/ha: 3.3

Relative magnitude: 1 Orientation: NNE - SSW

Barrow Group List No. 30 Location TR 1953 District: Bishopsbourne

Name: Bourne Park Morphology: linear

Number of barrows: 4 Area (ha): 2 Concentration barrows/ha: 2.0

Relative magnitude: 1 Orientation: NNW - SSE

Comments: Four 30 m. diameter ring ditches

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Barrow Group List No. 31 Location TR 3053 District: Eastry
Name: Venson Farm Morphology: linear
Number of barrows: 3 Area (ha): 0.45 Concentration barrows/ha: 6.6
Relative magnitude: 1 Orientation: NW - SE

Barrow Group List No. 32 Location TR 3453 District: Finglesham
Name: Foulmead Farm Morphology: linear
Number of barrows: 3 Area (ha): 0.3 Concentration barrows/ha: 10
Relative magnitude: 1 Orientation: NE - SW

Barrow Group List No. 33 Location TR 3452 District: Northbourne
Name: Great Mongeham Morphology: linear
Number of barrows: 4 Area (ha): 5 Concentration barrows/ha: 0.80
Relative magnitude: 1 Orientation: N - S

Barrow Group List No. 34 Location TR 3250 District: Northbourne
Name: Little Mongeham Morphology: area
Number of barrows: 4 Area (ha): 1.4 Concentration barrows/ha: 2.8
Relative magnitude: 1 Orientation: NNE - SSW
Comments: Two double ditches

Barrow Group List No. 35 Location TR 3150 District: Tilmanstone
Name: Stoneheap Farm Morphology: linear
Number of barrows: 3 Area (ha): 1.5 Concentration barrows/ha: 2.0
Relative magnitude: 1 Orientation: NNE - SSW
Comments: One double ditch

Barrow Group List No. 36 Location TR 3549 District: Ringwould
Name: Ripple Farm Morphology: area
Number of barrows: 3 Area (ha): 0.6 Concentration barrows/ha: 4.5
Relative magnitude: 1 Orientation: -

Barrow Group List No. 37 Location TR 3548 District: Ringwould
Name: Ringwould Morphology: linear
Number of barrows: 4 Area (ha): 1.5 Concentration barrows/ha: 2.6
Relative magnitude: 1 Orientation: NE - SW

Barrow Group List No. 38 Location TR 3547 District: Ringwould
Name: Martin Mill Morphology: linear
Number of barrows: 4 Area (ha): 2.2 Concentration barrows/ha: 1.7
Relative magnitude: 1 Orientation: NE - SW

Barrow Group List No. 39 Location TR 3545 District: St Margaret's

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Barrow Group List No. 39 Location TR 3545 District: St Margaret's

Name: Wallets Court Morphology: area

Number of barrows: 3 Area (ha): 1.5 Concentration barrows/ha: 2

Relative magnitude: 1 Orientation: ENE - WSW

Barrow Group List No. 40 Location TR 3646 District: St Margaret's

Name: Boockhill Farm Morphology: area

Number of barrows: 4 Area (ha): 3.2 Concentration barrows/ha: 1.3

Relative magnitude: 1 Orientation: ENE - WSW

Barrow Group List No. 41 Location TR 3249 District: Sutton

Name: East Studdel Farm Morphology: linear

Number of barrows: 3 Area (ha): 0.3 Concentration barrows/ha: 10

Relative magnitude: 1 Orientation: NE - SW

Barrow Group List No. 42 Location TR 3248 District: Sutton

Name: Sutton Downs Morphology: linear

Number of barrows: 3 Area (ha): 0.9 Concentration barrows/ha: 3.3

Relative magnitude: 1 Orientation: ENE - WSW

Comments: One double ring ditch

Barrow Group List No. 43 Location TR 3346 District: Langdon

Name: Martin Mill Morphology: linear

Number of barrows: 3 Area (ha): 0.45 Concentration barrows/ha: 6.6

Relative magnitude: 1 Orientation: ENE - WSW

Barrow Group List No. 44 Location TR 3151 District: Betteshanger

Name: Telegraph Farm Morphology: linear

Number of barrows: 4 Area (ha): 5.0 Concentration barrows/ha: 0.8

Relative magnitude: 1 Orientation: ENE - WSW

Comments: Two Saxon barrows

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APPENDIX 4.1: THE METAL DETECTOR REVOLUTION IN EAST KENT

The remote sensing of buried metallic objects was first postulated by archaeologists in 1930, when it was claimed that a detector had been constructed and demonstrated. Editor's notes in the *Antiquaries Journal*, Vol. X, 4, 1930, 285, tell how a Mr A.D.Passmore advised by Mr A.J.Jones built a device known as a 'Hughes balance'. This employed two coils, a battery, and headphones. When one of the coils passed over a metallic object the electro- magnetic balance was destroyed and a loud buzzing was heard in the headphones. The innovators claimed that a halfpenny (the size of a modern two pence piece) could be detected easily, the machine being so sensitive 'that it could be noticed whether the coin was flat or upright'! Either from some practical difficulty being encountered, or through sheer lack of interest, the device entered the limbo of things forgotten. It is perhaps ironic bearing in mind the rabidly anti detectorist stance of some members of the archaeological establishment that we invented the device ourselves.

Mine detectors came into use in World War II, but they could not detect small objects. It was not until the 1970s that printed circuit technology allowed the development and mass production of light hand-held detectors capable of finding coins and the like. Those first marketed were really only expensive toys, often relegated to the garden shed after visits to the beach yielded a few worn coins and hundreds of coke can ring-pulls. Some owners did persevere, and took to the countryside, whence occasional newsworthy finds of treasure trove emerged. Faced with a growing 'serious user' market, competing manufacturers, particularly in America, strove to increase the sensitivity of detectors, and to build in discrimination so that detectorists could tune out signals from the ubiquitous ring-pull and iron 'rubbish'. Detectors are at their most efficient under damp soil conditions or on loose friable topsoil such as that prepared for seeding. Deep furrows or long grass or a standing crop more or less preclude their use. A state of the art detector can register a signal from a small coin, say a Romano-British minim, at a depth of 20 cm. under ideal soil conditions. To reassure archaeologists, detectorists often state that the detection depth limit for larger coins, buckles and fibulae etc., is no more than 30 cm. Thus detection is confined to plough soil depth. While this is generally true, larger bronzes give signals from a greater depth. In the writer's presence a socketed axe and a sickle were detected at depths of 40 and 50 cm. respectively, and a hoard of palstave axes gave a powerful signal from 70 cm.

With the introduction of the improved detectors tens of thousands took up the pastime, the clubbable forming local groups and a national association, the National Council for Metal Detecting, with a constitution and rule book. Individualists created their own loose national association, the Federation of Independent Dectectorists, to offer the loner insurance cover and legal advice. Few archaeologists realise that among the many who bought detectors were

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amateur archaeologists, some of wide experience. In the clubs their influence promoted two developments. To the chagrin of archaeologists, detectorists began to trawl sources such as Victoria County History and county archaeological journals in search of prospecting venues. More positively, the clubs adopted a code of conduct which has rendered the hobby far less deleterious to our national heritage than would otherwise have been the case, that it is not always properly adhered to, is counterbalanced by the enormous value both actual and potential of the detector to archaeology.

In that period of catharsis, archaeologists should have considered the following. Firstly, that metal detecting had become an established popular pastime that can never now be legislated away. However, by establishing a friendly liaison with clubs and responsible individuals, archaeologists could monitor detectorist activities and explain why on certain occasions they had to oppose them. Such liaison would allow the flood of finds to be recorded, so that many distribution maps could be re-drawn and thousands of unsuspected settlements, roads and tracks could be located. While most detectorists cannot be won over into the ranks of archaeology, they are not innately antipathetic to it. They are not lawless and potentially violent treasure seeking yarhoos who trespass and plunder ancient monuments. Such people exist to be sure, but as a secretive minority who stay well clear of clubs.

Secondly, that as all the finds were coming from a topsoil depth of 30 cm, their discovery in large numbers was making an uncomfortable statement as to the integrity of our ancient subsoil horizons after fifty years of tractor ploughing.

And lastly, that a detector is not an instrument of the devil from which one should avert the eyes, but an invaluable aid on many archaeological sites.

Since the early 1980s the writer has used detectors in the following ways:

Predictive:

- i) As a vital adjunct to organised fieldwalking by Thanet Archaeological Society. Also, as a result of informal seminars, members of the Thanet and Wantsum detector club have come to recognise pre-Tudor sherds, worked flint, and a spectra of indicative materials. By these conjoined means, dozens of sites have been added to the Thanet and Kent S.M.R.s.
- ii) Ahead of topsoil stripping prior to excavation. This often gives prior warning of the presence of sites from concentrations of coins or metalwork. In cases when the removal of overburden is not in the hands of the archaeologist, such as pipeline watching briefs, the surface exposed by the 'easement' can be prospected to advantage, sites being located at levels well above that at which visual evidence such as sherd scatters appear.
- iii) To give forewarning of the presence of small and fragile objects or assemblages, especially in loose friable surroundings where they can be dispersed or even lost by even the most careful un-warned trowelling. Short baton-type detectors are now available that can be used to great

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advantage during excavations in for example, Thanet's Dark Age Jutish cemeteries. If as the grave fill is removed, the fill surface is scanned every five centimetres or so, any signal can be marked with a coloured plastic golf tee peg. A round area of fill centred on the tee peg can be left until it stands as an island a few centimetres high, when it can be explored laterally with spatula and soft brush. By these means groups of small bronze components such as the fittings for wooden boxes or cups can be recorded in their spatial context.

Site security:

iv) The surfaces of all features or horizons on an archaeological site can be scanned by detector as soon as they are exposed, and at every stage in their excavation. This should be done as a daily routine. Any signals registered can then be protected until the objects causing them are reached by the ordinary process of planned excavation. Protection can be afforded by either spreading metallic 'chaff' about the signal point, or better, by establishing a small temporary 'spoil heap' over the spot. Two or three barrow loads is will suffice, as the 'night hawks' do not come equipped with shovels or an enthusiasm for hard work. Even so, a few decoy spoil heaps may be as well if persistent pests are about.

Other than in Thanet, elsewhere in Kent there was little contact between archaeologists and detectorists until the formation of the Archaeologists and Detectorists Liaison Group in 1991. Since that date detector club members have by invitation carried out sweeps on the way-leaves and easements ahead of major pipelines and highway projects, and archaeologists have by invitation monitored Kent's annual metal detector rallies since 1992. On the negative side, some organisations in Kent have never liaised with detectorists, and has from their advent campaigned against them in the press and by poster. Their antipathy now extends even to those archaeologists who have sought rapprochement.

Twenty years on, archaeologists are at last coming to terms with the detector and learning to profit by its advent, a process that that has been and is being slowed by the intransigence of individuals on both sides.

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APPENDIX 4.2: LISTS OF BRONZE HOARDS AND FINDS IN KENT TO 1994; SOURCES AND ACKNOWLEDGEMENTS

List 1: Early Bronze Age finds

No.	Type of object or hoard	Found at:	OS Ref.
1	Flat Axe	Petts Wood	TQ 455675
2	Dagger	Cuxcton	n/k
3	Halbard	Faversham	n/k
4	Flat Axe	Little Chart	n/k
5	Dagger	Sittingbourne	TQ 912633
6	Dagger	Faversham	n/k
7	Dagger	Frindsbury	TQ 754691
8	Dagger	Upchurch	TQ 858717
9	Flat Axe	Igham	TQ 578554
10	Dagger	Ramsgate	TR 372645
11	Flanged Axe	Boxley	TQ 772598
12	Flanged Axe	Chatham Hill	TQ 7667
13	Flanged Axe	Chatham	n/k
14	Flanged Axe	Wye	n/k
15	Flanged Axe	Ashford	n/k
16	Flanged Axe	Elham	TR 180470
17	Flat Axe	Whitfield, Dover	n/k
18	Flanged Axe	Blean	n/k
19	Flanged Axe + Flat Axe	Gore End, Birchington	TR 289699
20	Flat Axe	Sturry	n/k
21	Flanged Axe	Margate	TR 350706
22	Flanged Axe	Ellington, Ramsgate	TR 375655
23	Flanged Axe	Bucklands, Dover	n/k
24	Flanged Axe	Cliffe	n/k
25	Flanged Axe	Petham	n/k
26	Flanged Axe	Reculver	n/k
27	Bracelet	Monkton	TR 290656
28	Bracelet	Minster	TR 302657
29	Flanged Axe	Acol	TR 313664

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List 2: Middle Bronze Age hoards and single finds

List No.	Type or Object	Location	OS Ref.
1	Hoard	Goudhurst	TQ 2737
2	Hoard	Ash	TR 273593
3	Hoard	Langdon Bay, Dover	TR 345423
4	Hoard	Dartford	TQ521724
5	Hoard (Ornament)	St. Lawrence, Thanet	TR 379661
6	Hoard (Ornament)	Hollicondane, Thanet	TR 379657
8	Hoard (Ornament)	South Dumpton, Thanet	TR 393664
9	Hoard	St. Mildred's Bay, Thanet	TR 327705
10	Hoard	Mutrix Farm, Thanet	TR 334707
11	Hoard	Birchington, Thanet, Birchington I	TR 304687
12	Hoard	St. Lawrence - Manston, Thanet	n/k
13	Hoard? (Bun Ingots)	Alland Grange, Thanet	TR 317665
	Single Finds		
14	Palstave	Epple Bay, Thanet	TR 308698
15	Palstave	North Foreland, Thanet	TR 395695
16	Spearhead	Eynsford	n/k
17	Spearhead	Chatham	n/k
18	Spearhead	Swale	n/k
19	Spearhead	Chatham	n/k
20	Spearhead	Rochester	n/k
21	Spearhead	Horton Kirby	n/k
22	Spearhead	Aylesford	n/k
23	Sword	Chatham	n/k
24	Rapier	Northfleet	n/k
25	Rapier	Chatham	n/k
26	Rapier	Chatham	n/k
27	Rapier	Chatham	n/k
28	Rapier	Rainham	n/k
29	Rapier	Folkestone	n/k
30	Rapier	Erith	n/k
31	Rapier	Folkestone	n/k
32	Rapier	Thanet	n/k
33	Palstave	Tunbridge Wells	TQ 576406

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	List 2 Continued	Middle Bronze Age Hoards/Finds	
List No.	Hoard or Object	Location	OS Ref.
34	Palstave	Sevenoaks	TQ526577
35	Palstave	Sevenoaks	TQ 525577
36	Palstave	Sevenoaks	TQ 521569
37	Palstave	Plaxtol	TQ 594598
38	Palstave	Flimwell	TQ 708321
39	Palstave	Medway	TQ 745544
40	Palstave	Maidstone	TQ 784525
41	Palstave	Chatham	TQ 7568
42	Palstave	Chatham Hill	TQ 770672
43	Palstave	Aylesford/Waldeslade	TQ 749623
44	Palstave	East Malling	TQ 713607
45	Palstave	Cliffe	TQ 722754
46	Palstave	Benenden	TQ 853352
47	Palstave	Rainham	TQ 8165
48	Palstave	Queensborough	TQ 9275
49	Palstave	Ashford	TR 0142
50	Palstave	Ashford	TR 0142
51	Palstave	Barham	TR 173499
52	Palstave	Barham	TR 206488
53	Palstave	Barham	TR 206488
54	Palstave (five finds)	Canterbury	TR 1457
55	Palstave	Bigberry Wood	TR 1157
56	Palstave	Canterbury	TR 1557
57	Palstave (three finds)	Petham	TR 1251
58	Palstave	Beltinge	TR 194679
59	Palstave	Reculver	TR 2269
60	Palstave	Deal	TR 378487
61	Palstave	Buckland, Dover	TR 3042
62	Palstave (two finds)	St. Lawrence, Thanet	TR 371653
63	Palstave (seven finds)	Richborough	TR 3260
64	Palstave (three finds)	Ashford	TR 0142
65	Palstave	Birchington, Thanet	TR2969
66	Palstave	Chatham	TQ 7568

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	List 2 Continued	Middle Bronze Age Hoards/Finds	
List No.	Hoard or Object	Location	OS Ref.
67	Palstave	Faversham	TR 0161
68	Palstave	Folkestone	TR 2236
69	Palstave	Maidstone	TQ 7653
70	Palstave (two finds)	Chislet	TR 2264
71	Palstave (two finds)	'nr Canterbury'	TR 1457
72	Palstave	Faversham	TR 0161
73	Palstave	Folkestone	TR 2236
74	Palstave	Maidstone	TQ 7653
75	Palstave	Rochester	TQ 7268
76	Palstave (two finds)	Sandling Park nr. Hythe	TR 1537
77	Palstave	Warden Bay, Sheppey	TR 0272
78	Palstave	Newington	TR 183370
79	Palstave	Tilmanstone	TR 295493
80	Palstave	'nr. Ashford'	TR 0142
81	Palstave	'Ebbsfleet nr. Dartford'	n/k
82	Palstave	Faversham	TR 0161
83	Palstave	Rochester	TQ 7268
84	Palstave (two finds)	Saltwood	n/k
85	Palstave	Little Chart	TQ 9842
86	Palstave	Barham	TR 2150
87	Palstave	Canterbury	TR 1457
88	Sickle	Minster (Sheppey or Thanet?)	n/k
89	Chisel	Harbledown	TR 1357
	Total of Hoards = 12	Thanet 8 (66%), Rest of County 4 (33%)	
	Total of Single Finds = 95	Thanet 6 (6%), Rest of County 89 (94%)	

List 3, Late Bronze Age Hoards and Single Finds in Kent

List No.	Hoard or Object	Location	OS Ref.
1	Hoard	Dartford	TQ 512737
2	Hoard	Dartford	TQ 525744

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3	Hoard	Broadness, Swanscomb	TQ 6076
4	Hoard	Marden	TQ 7444
5	Hoard	Stoke nr. Rochester	TQ 7368
6	Hoard	Cliffe at Hoo	TQ 725764
7	Hoard	Shorne	TQ 703737
8	Hoard	Homewood Farm, Hoo	TQ 8377
9	Hoard	Littlecomb Farm, Hoo	TQ 817774
10	Hoard	Hoo St. Werburgh	TQ 809737
11	Hoard	Sittingbourne/Swale	TQ 908641
12	Hoard	Isle of Harty	TR 0267
13	Hoard	Saltwood, Sheppey	TR 152365
14	Hoard	Swalecliffe	TR 133675
15	Hoard	Sturry	TR 184603
16	Hoard	Hoaden	TR 26758
17	Hoard	Ash	TR 273593
18	Hoard	Stourmouth	TR 264625
19	Hoard	Bucklands, Dover	TR 3141
20	Hoard	Bucklands, Dover	TR 3044
21	Hoard	Langdon Bay, Dover	TR 345423
22	Hoard	Aylesford	TQ 7359
23	Hoard	Gravesham	TQ 6274
24	Hoard	Dartford	TQ 521724
25	Hoard	Borstal	TQ 7366
26	Hoard	Aylesford	TQ 7359
27	Hoard	Ebbsfleet (I), Thanet	n/k
28	Hoard	Ebbsfleet (II), Thanet	TR 333633
29	Hoard	Ebbsfleet (III), Thanet	TR 333632
30	Hoard	Monkton (I), Thanet	TR 277654
31	Hoard	Monkton (II), Thanet	/ Same to 50 m
32	Hoard	Monkton (III), Thanet	Same to 50m.
33	?Hoard	Monkton (IV), Thanet	TR 277654
34	Hoard	Minnis Bay, Thanet, Birchington II	TR 286697
35	Hoard	Shuart, Thanet	TR 270677
	Single Finds		
37	Sword	Abbey Farm, Minster, Thanet	TR 313645

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	<i>List 3 Continued</i>	<i>Late Bronze Age Hoards/Objects</i>	
List No.	Hoard or Object	Location	OS Ref.
38	Sword	Westfield Road, Margate, Thanet	TR 344695
39	Spearhead	Chilton, Thanet	TR 360647
40	Socketed Axe	Somali Farm, Bichington, Thanet	TR 310677
41	Spearhead	Kingsgate Bay, Thanet	TR 35705
42	Socketed Axe	Ebbsfleet, Thanet	TR 333634
43	Socketed Axe	Ebbsfleet, Thanet	TR 333634
44	Spearhead	Coldharbour, (int. tidal zone)Thanet	TR 252694
45	Winged Axe	Abbey Farm, Minster, Thanet	TR 314647
46	Spearhead	Acol, Thanet	TR 314665
47	Socketed Axe	Minster, Thanet	TR 412642
48	Socketed Axe	Minster, Thanet	TR 412642
49	Flanged Axe	Margate, Thanet	n/k
50	Socketed Axe	Margate, Thanet	n/k
51	Socketed Axe	Hartsdown, Thanet	TR 344697
52	Socketed Axe	Hartsdown, Thanet	TR 344697
53	Sword	Way Hill, Minster, Thanet	TR 322657
54	Sickle	Monkton, Thanet	TR 277654
55	Bugle Fitting	Ozengell, Thanet	TR 357655
56	Spearhead	Reading Street, Thanet	TR 390695
57	Socketed Axe	Monkton	TR 277654
58	Sword	Darenth	TQ 560708
59	Sword	Aylesford	n/k
60	Sword	Rochester	n/k
61	Sword	Rochester	n/k
62	Sword	Chatham	n/k
63	Sword	Upnor Reach	n/k
64	Sword	Upnor Reach	n/k
65	Sword	Whitstable	n/k
66	Sword	Folkestone	n/k
67	Sword	Worth	n/k
68	Sword	Erith	n/k
69	Sword	Bromley	n/k
70	Sword	Bromley	n/k

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	<i>List 3 continued</i>	<i>Late Bronze Age Hoards/Objects</i>	
List No.	Hoard or Object	Location	OS Ref.
71	Socketed Axe	70	Sword
72	Socketed Axe	Stone	n/k
73	Socketed Axe	West Peckham	n/k
74	Socketed Axe	Wateringbury	n/k
75	Socketed Axe	Cobham	n/k
76	Socketed Axe	Gravesham	n/k
77	Socketed Axe	Bearstead	n/k
78	Socketed Axe	Strood	n/k
79	Socketed Axe	Frindsbury	n/k
80	Socketed Axe	Frindsbury	n/k
81	Socketed Axe	Chatham	n/k
82	Socketed Axe	Burham	n/k
83	Socketed Axe	Cooling	n/k
84	Socketed Axe	Frindsbury	n/k
85	Socketed Axe	Bearstead	n/k
86	Socketed Axe	Harrietsham	n/k
87	Socketed Axe	Gillingham	n/k
88	Socketed Axe	Sittingbourne	n/k
89	Socketed Axe	Lympne	n/k
90	Socketed Axe	Hythe	n/k
91	Socketed Axe	Whitstable (3 finds)	n/k
92	Socketed Axe	Barham	n/k
93	Socketed Axe	Nonington	n/k
94	Socketed Axe	Pineham	n/k
95	Socketed Axe	Dover	n/k
96	Socketed Axe	Worth	n/k
97	Socketed Axe	Deal	n/k
98	Socketed Axe	Minster, Thanet (3 finds)	n/k
99	Socketed Axe	Canterbury	n/k
100	Socketed Axe	Richborough	n/k
101	Socketed Axe	Frindsbury	n/k
102	Socketed Axe	Upnor	n/k
103	Socketed Axe	Wesgate, Thanet	n/k

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	<i>List 3 Continued</i>	<i>Late Bronze Age Hoards or Finds</i>	
List No.	Hoard or Object	Location	OS Ref.
104	Socketed Axe	Yalding	n/k
105	Socketed Axe	Borstal	n/k
106	Socketed Axe	Burham	n/k
107	Socketed Axe	Canterbury (2 finds)	n/k
108	Socketed Axe	Dover (3 finds)	n/k
109	Socketed Axe	Ebbsfleet, Thanet (4 finds)	n/k
110	Socketed Axe	Faversham	n/k
111	Socketed Axe	Herne Bay (2 finds)	n/k
112	Socketed Axe	Higham (2 finds)	n/k
113	Socketed Axe	Maidstone	n/k
114	Socketed Axe	Offham	n/k
115	Socketed Axe	Reculver	n/k
116	Socketed Axe	Sturry	n/k
117	Socketed Axe	Tunbridge	n/k
118	Socketed Axe	Whitstable (4 finds)	n/k
119	Socketed Axe	Orpington	n/k
120	Socketed Axe	nr. Canterbury (3 finds)	n/k
121	Socketed Axe	Birchington, Thanet	n/k
122	Socketed Axe	Wingham	n/k
123	Winged Axe	Hythe	n/k
124	Winged Axe	Ashford	n/k
125	Winged Axe	Ebbsfleet, ?Thanet	n/k
126	Winged Axe	Ramsgate, Thanet	n/k
127	Winged Axe	Tilmanstone	n/k
128	Spearhead	Stone	n/k
129	Spearhead	Southfleet	n/k
130	Spearhead	Ashfords	n/k
131	Spearhead	Rochester	n/k
132	Spearhead	Dover	n/k
133	Spearhead	Medhurst	n/k
134	Spearhead	Minnis Bay, Thanet	n/k
135	Spearhead	Canterbury (2 finds)	n/k
136	Chisel	Eynsford	n/k

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	<i>List 3 Continued</i>	<i>Late Bronze Age Hoards or Finds</i>	
List No.	Hoard or Object	Location	OS Ref.
137	Gouge	Hadlow	n/k
138	Chisel	Canterbury (2 finds)	n/k
139	Chisel	Sturry	n/k
140	Gouge	Chartham	n/k
141	Sickle	Dartford	n/k
142	Gouge	Offham	n/k
143	Pin	Mill Hill, Deal	TR 3651
144	Ring (bracelet?)	Mill Hill, Deal	TR 3651
145	Knife blade	Highstead, Chislet	TR 2166
146	Ring (bracelet?)	Highstead, Chislet	TR 2166
	Total of Hoards = 36	Thanet 10 (28%), Rest of County 26 (72%)	
	Total of Single Finds = 138	Thanet 32 (23%), Rest of County 106 (77%)	

Sources: The Kent and Thanet Sites and Monuments Registers, The British Museum (correspondence), Archaeologia Cantiana Vols. 1 - 114 (1994), and pers. comm. Martyn Barber.

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APPENDIX 5.1: SUPPOSED PREHISTORIC SETTLEMENT CROPMARKS

In general the distribution of all cropmark sites in Kent supposed to be prehistoric settlements (see Lists 24 - 39 and Distribution Maps Figs. 2.5 - 2.12 in Chapter 2) shows the great majority to be situated in Thanet and the Sutton Wedge, the only other concentration being along the downland south of the Thames Valley. Though unequal in size, both the east Kent distributions are at about the same density, although types of site are distributed un-evenly as follows:

Possible hut circles (List 24). These are concentrated in the Sutton Wedge area.

Circular/sub-circular enclosures (Lists 25, 26, 27 and 28). The List 25 and 26 sites are few in number, and all are in west Kent. List 27 and 28 sites are evenly distributed between Thanet and the Sutton Wedge area.

Regular enclosures (Lists 29, 30, 31 and 32). The Sutton Wedge holds most of these.

Oval enclosures (Lists 33, 34 and 35). Most of these are in the Sutton Wedge area.

Curvilinear/asymmetrical enclosures (Lists 36, 37, 38 and 39). These are distributed at about the same level of concentration between Thanet and the Sutton Wedge area.

The Air Photography Unit of the Royal Commission for Historical Monuments in England has produced twelve lists of cropmark enclosure sites in Kent which they attribute to the Late Belgic - Roman period (Lists 2, 5, 6, and 8 to 16) all are rectilinear. There are 379 sites in the lists, of which 209 are given as Belgic and 170 as Roman. Over 89% of the sites are in Thanet or the north-east Kent area. In their report (Edis and Horne 1989) they explain the basis of their attribution as site configuration (Report Section 3.2.1): 'As a general rule, it has been assumed here that unless there is evidence to the contrary, rectilinear enclosures date from the later Iron Age to the end of the Roman period; although to the best of our knowledge no such cropmarks have yet been excavated in Kent'.

As to a further interpretation of this data, it will be seen in Appendix 5.2 that the number of excavated prehistoric sites in Kent is surprisingly small. Also that it is difficult to assign periods to the types of cropmark with any certainty, as excavated settlements of any given period come in a variety of forms. The investigated rectilinear ditched enclosures of the Late Bronze Age and Late Bronze - Early Iron Age listed below must surely bring the above assumptions into question except when rectilinear sites can be seen to align with Roman roads.

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APPENDIX 5.2. A CORPUS OF EXCAVATED OR PART EXCAVATED PREHISTORIC SITES IN KENT TO 1994

List 1: Neolithic sites c. 3500 - 2000 BC

1: *Grovehurst, Milton next Sittingbourne*

Discovered during brickearth extraction during the years 1871-78. 'Several' pits about 3.0 m. in diameter by 1.5 m. deep were found. Their fills yielded a flint assemblage that included five polished axes, plano-convex knives, burins and scrapers and debitage, also bowl fragments and animal bones (bos.). The pits were interpreted as sunken hut floors. (Payne 1880).

2: *Caesar's Camp, Folkestone*

Neolithic pottery found within the later hillfort site , (Pit Rivers 1882)

3: *Wingham*

A pit roughly 1.3 m. in diameter by 0.50 m. deep was observed during construction of a sewer pipeline in 1955. It contained pot sherds (Windmill Hill type, eastern style), an antler comb, part of a saddle quern, and midden material, (Greenfield 1960)

4. *Baston Manor, Hayes*

Trenching in woodland in search of a Roman building in 1964 produced a large Mortlake type bowl and a polished axe. A limited area excavation uncovered an horizon bearing Neolithic sherds (Mortlake, Ebbsfleet, Fengate types) and pot boilers. It was cut by postholes, (Philp 1973).

5): *Cretway Down, Folkestone*

A scatter of flints and potsherds (decorated style) were ploughed up in 1956, (Dunning 1966), the following entries from the same source until 12)

6): *Mill Road, Deal*

A pit containing four bowls (Windmill Hill, eastern style), a 'grain crusher' and flint flakes

7): *St. Richards Road, Deal*

A pit (possibly a grave) containing a human tooth, bowl sherds, and a part polished flint flake

8): *Cold Blow Farm Ripple.*

A working floor with waste flakes, pot boilers and pot sherds

9): *Sholden*

A bowl sherd, flint flakes, scrapers and a retouched polished axe were found during brickearth extraction.

10): *Hawkshill Down, Walmer*

A small pit contained a bowl sherd and a perforated stone, possibly a mace head

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11): *Nethercourt Farm, Ramsgate*

A pit of oval plan cut into chalk and measuring roughly 3 x 1.5m and 1.5m deep. It contained a crouched burial lying on the flat floor, under fragments of a large bowl of Windmill Hill type. Above in the grave fill were the scattered remains of another individual.

12): *Chalk Hill, Ramsgate*

A shallow pit contained a few flints and 35 Neolithic sherds, most from three vessels in the Peterborough tradition, but with (?residual) sherds of Windmill Hill type. About 200m east of this site the gardens of Chilton Farmhouse have produced a large lithic assemblage (Perkins and Hearne 1995).

13): *Preston (Stourmouth - Adisham Main)*

A hearth in a shallow pit yielded fragments of a Neolithic bowl in the Windmill Hill south-western style (Ogilvie 1977).

14): *Kit's Coty House*

In 1854 Thomas Wright discovered 'rude pottery' under the monument, (Jessup 1970), and fieldwalking near the site revealed Neolithic and beaker sherds in 1936, (Cook 1936).

15): *Chestnuts Megalith, Addington*

During excavations at this site in 1957 over 100 Neolithic sherds (Windmill Hill type, eastern style) were found on the old ground surface beneath the barrow (Alexander 1961).

16): *Monkton-Manston, Thanet*

A small pit containing midden material, flints and a sherd of Neolithic pottery was sectioned by a pipeline in 1983 (Perkins 1984). During archaeological excavation ahead of work to improve the A253 in 1994 several similar sherds were found nearby (pers. comm. N. Macpherson-Grant).

17): *Channel Tunnel Route, Folkestone*

Neolithic sherds and a flint scatter were found near Holywell Coombe (Bennett 1988).

18): *Minnis Bay, Birchington*

This site is in the inter-tidal zone, and is situated 500m off-shore, so that it can only rarely be visited on exceptionally low tides. Fragments of two Neolithic bowls of Windmill Hill south western style were found there apparently on an ancient stream bank, (Macpherson-Grant 1969), and in 1993 the writer observed a crescent shaped structure of post stumps and a shell midden.

19): *Ebbsfleet, Northfleet*

A number of sherds of Neolithic pottery (Peterborough ware) were recovered from the bed of the Ebbsfleet after pumping operations in 1938, (Burchell & Piggott 1939).

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List 2: Early Bronze Age Sites c. 2000 - 1500 BC

20) *Broomwood, St. Pauls Cray*

This was the investigation of an upstanding earthwork. It was found to be a rectangular enclosure measuring 40 x 21 m. formed by earth banks with opposed entrances on the long sides and with banked 'hut circles' in opposing corners, (Parsons 1961). The only dating evidence took the form of a flint scatter, the assemblage consisting of Early Bronze Age forms

21) *Laundry Road, Minster, Thanet.*

This site was already recorded as a sub-rectangular cropmark when Evaluation ahead of a proposed development revealed it as a ditched enclosure measuring c. 80 x 40 m. Work was limited to four ditch sections so as to preserve the integrity of the site. These yielded beaker sherds and a flint assemblage that included a tanged and barbed arrowhead. Grave fills in an adjacent Jutish cemetery contained residual beaker sherds (Perkins 1995a).

22): *Holywell Coombe, Folkestone*

Early Bronze Age settlement remains consisting of plough marks (ard), postholes and a sunken trackway were recorded during rescue work ahead of the Channel Tunnel rail link in 1987. They were associated with a small barrow group (Bennet 1988).

23): *Greenhill, Otford*

Pits (?hearths) containing a flint assemblage and beaker sherds were recorded during a research excavation. The site was interpreted as a temporary camp (Pyke 1980).

List 3: Middle Bronze Age Sites c. 1500 - 1000 BC

24): *Hayes Common*

Trial trenching as part of a training excavation in 1962 located postholes and about 50m of ditch. Sections through this and a small area excavation nearby yielded Middle Bronze sherds and a flint scatter, (Philp 1973)

25): *St. Lawrence College, Hollicondane, Ramsgate*

A pit, possibly a storage pit, was found during the cutting of building footings in 1929. It was found to contain an intact urn holding three picardy pins (Hawkes 1942). Hawkes was of the opinion that these deposited items were not funerary, and were from within the context of a settlement. Local tradition puts the discovery spot of a grave furnished with penannular bracelets (Piggott 1949) as c.500m to the south across a valley on rising ground.

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26): *Netherhale Farm, Birchington*

During the investigation of a Medieval enclosure in 1979 two segments of ditch belonging to a sub-circular enclosure were exposed. Cropmark evidence on the excavation plan indicated a diameter of about 30m . About 15m of ditch was excavated and found to have been back-filled as a shell midden. Finds included human bones, fragments of two large storage jars and a complete smaller vessel, (Perkins 1980).

27): *South Dampton Down, Broadstairs, Occupation Phase II*

The final stage in a series of piecemeal investigations of a large multi-phase settlement site, Beaker - Roman, was concluded by the writer in 1994, having commenced in 1907 (Hurd 1909). The topographical context of the site is that of a promontory from the escarpment edge of Thanet's chalk downland plateau overlooking the modern cliff line to the east and a valley to the north, see Fig. 5.13. The work of 1994 consisted of the stripping and excavation of one hectare of land ahead of urban development (Perkins 1995c). This revealed two ditched enclosures a) and b), see Fig. 5.11. Enclosure a) was of polygonal plan and 0.2 ha. in area with two causeway entrances and internal posthole structures. Finds included an ornament hoard (palstaves and bracelets), a quoit-headed pin, and an assemblage of Deverel-Rimbury ceramics. Enclosure b) is of unknown size as it extended out of site under a modern school building. Both enclosures can be seen to respect a major feature, a great defensive ditch or 'Fosse'. This ditch, typically 10 m. wide and 2.5 m. deep, appears to frame an area of at least 7.2 ha., its two eastward extensions being lost at the modern cliff line, see Fig. 5.13.

28): *St. Mildred's Bay, Westgate*

After the great gale of 1987 a multi-phase prehistoric site was exposed in the inter-tidal zone at St. Mildred's Bay (Perkins 1988). The main feature revealed was an ancient stream bed running north to low water mark through what must have been a broad shallow valley between low chalk hills. Archaeological remains were observed both in the stream bed (structures formed by piles) and on both east and west banks. The chronology of the sites proceeded in order from low to high water marks, and they ranged in date from the Neolithic (part of a dugout canoe with associated flint scrapers) to Middle and Late Bronze Age settlements, and Belgic-Roman features.

The Middle Bronze Age remains consisted of a ditched and palisaded enclosure (see Fig. 5.12, B) protected from flooding by a bund constructed from calcined flint 'pot boilers' (literally countless) in a matrix of brickearth, (Fig. 5.12, F.35). The ditch was of truncated-V section, and about 2.5 m. wide by 1.4 m. deep. As exposed it appeared to form part of an oval enclosure at least 50 m. across. A hoard of ten palstave axes was found in a small pit cut into one bank of the ditch, see Chapter 4.

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List 4: Late Bronze Age Sites c. 1000 - 600 BC

29): *Minnis Bay, Birchington*

This site was in the inter-tidal zone and was first exposed in February 1938 after a great north-east gale (Worsfold 1943). An area of 0.09 ha. contained a large rectangular pit, storage pits and postholes (for pile dwellings) all cut into the underlying chalk, and a low bank of loam and gravel, presumably a bund against flooding. A Late Bronze Age hoard consisting of seventy-three objects was found buried 0.30 m. below the surface of this bank. The remains were situated on the east bank of an ancient stream bed that can still be traced running north to the sea, the overall context being a broad valley between low hills of chalk and Thanet Beds sands. The total area of this settlement cannot now be known, as trenching across the bay by the writer in 1990 revealed that they had been destroyed by wave attrition and bait digging during the last fifty years, only residual material remaining (Perkins 1990)

30): *Mill Hill Deal*

This site was investigated in 1934 when threatened by building development, (Stebbing 1934). It consisted of a sub-circular ditch enclosure about 53m in dia with a single causeway entrance set about with postholes of a gate structure. The ditch was between 2.5 and 4m wide and almost 4m deep. Little of the interior was excavated. From the ditch fill came evidence of bronze working which included a mould for casting small rings.

31): *Highstead, Chislet*

These sites are located on the Pleistocene gravel terraces of the Stour, overlooking the Wantsum Channel. Archaeological examination ahead of gravel extraction in 1976 revealed a complex pattern of remains, Early Bronze Age to Medieval (Tatton-Brown 1976). Two Late Bronze Age ditched enclosures were exposed, they were listed in the latter report as:

Enclosure 24: Oval with three causeway entrances and measuring about 50 x 40 m. It contained pits and posthole systems representing superimposed circular and rectangular structures.

Enclosure 70: Sub-rectangular with a causeway entrance, and measuring about 40 x 50 m. The ditch had been defended within by a palisade and the causeway had had a gateway structure of posts,. Among finds from the ditch fills were moulds for casting bronze pins (Champion 1982).

32): *Monkton, Thanet*

This site is located on a chalk downland escarpment overlooking the Wantsum Channel. Following the discovery of three, possibly four, Late Bronze Age hoards within 50 m. or so of one-another, in 1992 the writer carried out an evaluation of the site funded by English Heritage (Perkins 1994). The evaluation method, a mixture of trenching and area excavation, did not allow the boundaries of the site to be established within the six week period of access. It

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appeared however to be at least 3.25 ha. in area. Ditches were encountered that probably formed the settlement boundary. They were of V section and were 4 m. wide by 2 m. deep. Seven hut floors were sectioned by trenches, giving the expectation that the enclosure would have contained at least twenty-eight huts. A bronze hoard (Monkton II) had been buried through the floor of one hut, see Chapter 4. There were a number of pits, some large and back-filled with midden material, others small with fills of ashes and calcined flints. In one was found a bronze sickle and droplets of bronze suggestive of casting.

33): *Ebbfleet, Thanet*

During an archaeological watching brief in 1994 over construction of a wastewater treatment plant, a Late Bronze Age settlement site was encountered (Perkins and Herne 1995). The extent of the site could not be determined, but postholes, ditches and pits were recorded over 50 m. of a road bed cutting. A small Late Bronze Age hoard was found nearby, see Chapter 4.

34): *Hartsdown, Margate*

During evaluation work ahead of planting a 'community woodland' at Hartsdown in 1995 cropmarks representing a group of enclosures (Site 3) and a single enclosure (Site 1) were investigated by trenching, (Perkins 1995 b). Both sites were situated on the ridge of an escarpment overlooking a one-time river valley and were spaced about 600m apart.

Site 3 was found to consist of three circular or sub-circular ditched enclosures, two (interlocking) of about 50m in diameter, and one (?superimposed) of about 20m in diameter. The ditches were of shallow open-V section about 2m wide and 0.8m deep.

Site 11 a single enclosure of sub-rectangular plan was found to measure 50 x 70m and was contained by a ditch of truncated-V section about 2m wide and 1.2m deep.

On both sites finds were sparse, perhaps indicating a low level occupation. Ceramic spot-dating suggested a single period of use, c. 800-600 BC.

35) *St. Mildred's Bay, Westgate*

The overall context of this site is given in List C (28) above. The Late Bronze Age remains are distributed throughout an area of about 0.32 ha. on both banks of, and in the ancient stream bed, see Fig. 5.12, areas A and E. They consist of three hut circles of postholes, storage pits lined with wattle, larger pits filled with peat, and two rectangular cuttings in the coombe rock, each measuring about 10 x 10 m. The within the latter were found large quantities of briquetage. Other ceramics from the site were much as found at Monkton (Perkins unpublished).

36): *Eddington Farm, Herne Bay*

A large playing-card shaped enclosed settlement site was encountered during a watching brief over landscaping ahead of construction of a 'superstore' in 1994, the area estimated at over 1.8

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ha. Ceramics were similar to the assemblage at the Monkton Site (Site 32) Bronze dress and slag was found (pers. comm. N. Macpherson-Grant).

37) *Chalk Hill, Ramsgate*

The location and circumstances of this discovery were as List A, Site 12. Topsoil clearance ahead of pipeline trenching revealed part of a rectilinear ditched enclosure of unknown dimensions but at least 30 m. on one side. Finds included sherds and midden material, and a Late Bronze Age socketed spearhead was previously found by metal detector at this point (Perkins and Herne 1995).

List 5: Late Bronze - Early Iron Age Sites, c. 600 - 300 BC

38): *Waterbrook Farm, Sevington, Ashford*

Archaeological evaluation work in 1992 located two well defined areas of prehistoric habitation. In both cases trenching revealed pits, postholes, and ditches with finds indicating a Late Bronze - Early Iron Age occupation. In the first area possible remains of a circular building were observed (Panton and Elder 1992).

The Bridge By-pass archaeological survey. Sites 37 - 39 (Macpherson-Grant 1980)

39) *Barham Down, Site 1*

During survey work ahead of highway construction an occupation area of unknown dimensions was encountered. Postholes and pits were distributed throughout an area measuring 20 x 80 m.

40): *Kingston Down, Site 5*

Enclosure ditches were encountered, but the plan could not be ascertained, although the site was at least 30 m. across. Pits and postholes were recorded, and the dimensions of the ditches suggested a settlement of the open type. Some site ceramics were dated to 1000 - 800 BC..

41) *Bridge, Site 8*

A sub-circular enclosure was partly exposed and 40 m. of ditch investigated. As at Site 5 above some ceramic evidence suggested an earlier Late Bronze Age phase of occupation.

42) *Barham Crossroads*

During a highway construction watching brief a U-shaped ditched enclosure 50 m. across was partly exposed. A short length was excavated and found to be 3.5 m. wide and 1.7 m. deep. A number of shallow pits and postholes were recorded (Bennett 1986).

43): *Dumpton Gap - South Dumpton Down, Broadstairs, Occupation Phase III*

The topographical context of this site has been given above in List C, Site 27. The remains from the Early Iron Age phase of occupation are extensive and are shown by the hatched area

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in Fig. 5.13. They were first encountered in 1907 when a clifftop road South Cliff Parade was being constructed (Hurd 1909). Howard Hurd recorded and sectioned two lengths of ditch cut by the cliff line and thought them to be angles of a single major defensive ditch or 'Fosse' protecting a 'Celtic Village'. During building development in 1908 Hurd investigated a rectangular enclosure, pits, ditches and graves. These features are shown in solid black in Fig. 5.13, Area A.

Further discoveries were made in 1971/72 when farmland was being stripped down to chalk prior to urban development. Lengths of ditches, pits and postholes were excavated in a rescue operation (pers. comm. T. Champion). These features are shown in Fig. 5.13, beside Lines D and E. Later in the 1970's an area between Lines B and F was developed as 'Seven Stones Estate'. Numerous archaeological features were destroyed by the builders with some piecemeal attempts being made to record them by east Kent excavation groups working in competition with one-another. Mr. Peter Summers who worked on the building site remembers a number of crouched burials in stone-lined cists, two of them with dogs, a phenomena encountered by Champion (Minter and Herbert 1973).

In 1994 the writer was commissioned to excavate the last piece of undeveloped land shown in the angle of Lines C and B. Topsoil stripping exposed another length of Hurd's 'Fosse' and large palisaded rectilinear enclosures parallel to it, see Fig. 5.14. Within the enclosures were posthole structures for both round and rectangular buildings, and fifty-six pits. Some of the latter were bottle-shaped, 2 m. in diameter and up to 2.5 m. deep. All were back-filled with midden materials and ashes, and in four cases held somewhat impromptu looking burials. Other burials, extended and without skulls, had been placed at intervals in a palisade trench parallel to the Fosse. The latter feature, while perhaps originally excavated in the Middle Bronze Age, had been subject to use and refurbishment during the Late Bronze - Early Iron Age occupation, and finds in the fill strata suggest that it was slowly in-filling and perhaps in use as a sunken track as late as AD 150.

44): *Dumpton Park Drive, Broadstairs*

When a building plot was subject to evaluation in 1989 archaeological features were recorded throughout an area of 50 x 50 m. (0.25 ha.). They consisted postholes and small pits which yielded pot sherds of Early - Middle Iron Age date, c. 400 BC (Perkins 1989).

45): *Hartsdown, Margate, Sites 5, 7, and 8*

During evaluation work in 1995 (see List D, Site 34) three enclosures were examined by trenching. All three were located in line along the ridge of a downland escarpment within an area of scattered pits and posthole structures about 3 ha. in extent, see Fig 5.15. Ceramic evidence suggests a single fairly short period of occupation for all three sites.

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Enclosure A): This was a rectangular enclosure framed by palisade trenches. As interpreted from cropmark photos and recorded features it would seem to measure 50 x 60 m. (0.3 ha.), but the site extends north-west into an area where topsoil depth and land use preclude cropmark evidence. Within the enclosure trenches revealed two posthole structures of rectangular plan, sub-dividing internal palisade trenches, and large storage pits re-used as middens. Finds included large quantities of ceramics with some imported wares.

Enclosure B): A rectangular ditched enclosure of which the north-west extension cannot be traced beyond the field boundary as in Site 5. Cropmark evidence and trenching indicate that the enclosure measures at least 55 x 55 m. (0.3 ha.) with a wide causeway entrance on its southern side, see plan Fig (). Within the enclosure ditch were observed inner sub-dividing ditches and posthole systems. Several large bottle-shaped storage pits were excavated and found to have been re-used as middens. These yielded pot sherds and finds in profusion.

Enclosure C): A rectangular ditched enclosure measuring about 20 m. x 10 m. and containing a large pit. It is situated about 20 m. west from the south-west angle of Site 7 and aligns with the south-west - north-east side of the latter enclosure.

6) *Canterbury By-pass*

Fourteen pits containing Late Bronze Early Iron Age pottery were observed scattered through an area of 50 x 100 m. (Bennet 1980).

47) *Sarre, Thanet*

A major sewer pipeline to connect Sarre to main drainage was proposed in 1989. In 1990 the writer carried out an evaluation by trenching in the unexcavated area of the Sarre Jutish cemetery (Perkins 1991). During this work ditched enclosures were encountered on the downland escarpment above the village. A watching brief over pipeline construction in 1991 found the area of settlement to extend along the ridge for 600 m. and cropmarks indicating pits and ditches can be seen extending for at least 100 m. into the fields north and south of the pipeline and parallel A253 (the ancient Dunstrete). Two phases of occupation were evident, Early - Middle Iron Age c. 550 - 300 BC. and Late Iron Age/Belgic/Roman c. 100 BC - AD 100 throughout an area of at least 1.2 ha.

48) *Potten Street, St. Nicholas, Thanet*

During the spring of 1991 the writer carried out an evaluation by trenching along the line of proposed improvements to the A256 Thanet Way between St. Nicholas and Monkton. Close to Potten Street trenches revealed a Late Bronze - Early Iron Age land surface cut by pits and postholes throughout an area at least 100 m. in diameter. This horizon had been cut by ditches holding Belgic material, and by the foundations of a Roman building (Perkins and Macpherson-Grant 1991).

49) *Ebbsfleet, Thanet*

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During evaluation work ahead of construction of a wastewater treatment works in 1994 a late Bronze - Early Iron Age settlement was discovered by trenching. The remains consisting of hut floors, pits and ditches were found to extend through an area of at least 8 ha. (Perkins and Hearne 1995).

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List 6: Middle Iron Age Sites, c. 300 - 100 BC

50) *Caesar's Camp, Keston*

This multivallate hill fort 12.8 ha in area was investigated by the Inspectorate of Ancient Monuments during the years 1956-9 (Piercy-Fox 1969). The excavations were principally designed to examine entrances and section ditches and ramparts, and revealed evidence of revetting being destroyed by burning. All ceramics associated with construction of the fort were described as 'Iron Age B', roughly Middle to Late Iron Age.

51) *South Dumpton Down, Broadstairs, Occupation Phase IV*

Finds from a few pits showed that occupation of this prehistoric site (see List E, Site 41) continued into the Middle Iron Age.

52) *Castle Hill, Tonbridge, Forts 1 and 2*

This site consists of adjoining contour forts which were investigated in 1969-71 (Money 1975). The two forts which are univallate measure 1.2 ha. and 1.01 ha. in area. Radiocarbon date estimates from charcoal from under the ramparts give construction dates as 315 BC and 228 BC respectively.

53) *North Foreland Hill, Kingsgate, Broadstairs*

Aerial photographs of cropmarks taken by Thanet Archaeological Trust over the last decade had suggested that the 'lighthouse hill' at North Foreland was the site of a multivallate hill fort or promontory fort some 24 ha. in extent (Perkins 1993). In 1994 the landowner gave permission for an investigation. Trenching gave several sections though double chalk-cut ditches, but showed that plough attrition had been so severe that as to lower the chalk surface, so that no trace of ramparts could survive. The ceramic finds suggested occupation c. 300 - 25 BC, with the ditches infilling c. 25 BC - AD 150. Early Bronze Age and Roman remains have been found within the fort, and notably graves containing extended burials, one with 'Marnian' sherds (Perkins 1980).

List 7: Late Iron Age - Belgic Sites, c. 100 BC - AD 50

54) *Bigberry Camp, Harbledown*

This is a univallate hillfort about 14 ha. in extent and having a bivallate annexe. It was investigated during the 1930's (Jessup 1932, Jessup and Cook 1936) with further work in the late 1970's by Kent Archaeological Society. Although Early Iron Age pottery has been found on the site construction and occupation was Belgic.

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55): *Oldbury Hill, Igham*

This univallate hillfort of 50 ha. extent was investigated in 1938 by Kent Archaeological Society (Ward-Perkins 1939). Although there is evidence for two phases of occupation, the presence of wheel-turned ceramics indicates that construction took place c. 150 - 50 BC. This is significantly later than Kent's other hillforts (Cunliffe 1982).

56): *Squerries, Westerham*

This bivallate hillfort with an area of about 7.3 ha. was investigated in 1961 by Kent Archaeological Society (Piercy-Fox 1970). Ceramic evidence suggests the period of construction and use of the site to be Late Iron Age, just pre-Belgic.

57): *Ashendens Gravel Pit, Sturry*

A 'circular camp' 75 m. in diameter was encountered during gravel extraction. The ditch was sectioned and found to be 4 m. wide and 1.5 m. deep. Although described as an Early Iron Age site, pottery from the lower levels of ditch fill were identified as Belgic and Saxon (Cook 1933).

58): *Quarry Wood Camp, Loose*

This univallate hillfort was investigated by Kent Archaeological Society in and after 1963 (Kelly 1971). It has an area of about 12 ha., although the defences are incomplete due to quarrying. Ceramic evidence points to construction late in the Belgic period, just pre-conquest.

59): *Sarre, Thanet*

The large area of prehistoric settlement described in List E Site 45 above had a Late Iron Age-Belgic-Roman phase. While ceramic evidence suggests that occupation was less intense during the latter period (Perkins and Macpherson-Grant 1991) it appeared to extend throughout the overall settlement area, and enclosure ditches overlooking Sarre village appear to be Belgic (Perkins 1991).

60): *Bridge Hill*

Two pits containing midden material and sherds were found during building work (Watson 1963).

61): *Hartsdown, Margate*

During evaluation work as described in List D, Site 34, part of a rectangular ditched enclosure measuring at least 35 x 45 m. was encountered by trenching. Internal pits yielded midden material and sherds spot-dated to the Belgic pre-conquest period, first half of the first century AD. (Perkins 1995b).

62) *Fort Hill, Margate*

Development work to the rear of the Britannia Inn in the 1930s and in 1984-5 uncovered pits and ditches yielding large quantities of Belgic pottery. The nature of the developments

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precluded proper investigation, but a rectilinear enclosure of at least 0.23 ha. was indicated (T.F.T. A. archives).

63) *Westbrook clifftop, Margate*

During work to construct 'Westbrook Sunken Garden' in 1923 'Late Celtic remains' were found (OS records). Research excavations nearby in 1984 revealed a section of ditch postholes and pits with Belgic material under superimposed Roman features (T.F.T.A. archives).

64) *Grenham Bay cliffs, Birchington*

The cliff-face at Grenham Bay is cut by ditches showing in section and pits, some of them 4.0 m. deep and 3.0 m. in diameter. Belgic pot sherds and midden materials are exposed in these sections. Nothing is visible on the cliff-top surface of lawns, but the sectioned features run for more than 50 m. (T.F.T.I.A. archives).

65) *Park Road, Ramsgate*

This site was uncovered in and after 1878 during the excavation of a large chalkpit. The remains recorded consisted of seven pits backfilled with midden material and about 80 m. of ditch 'in section like a wide W'. Also found was a well which was sectioned to its bottom by the quarrying operations. The shaft was square, and about 35 m. deep. The remains of a bronze cauldron were found in the bottom silts (Hillier 1889).

66) *Tothill, Minster, Thanet*

This large site has been encountered variously by grave digging in the Minster cemetery, during road improvements, and in the easement for a gas pipeline. It consists of lengths of ditch and large pits containing abundant Late Iron Age and Belgic materials including iron objects and slag. The area of the remains is at least 150 m. across. Aerial photos show an adjacent cropmark to be rectangular and about 2.5 ha. in area (TSMR and T.F.T.A. archives).

67) *Thorne Farm, Ramsgate*

These remains are situated adjacent to the A253 north of Thorne Farm. In 1984 a gas pipeline easement sectioned about 400 m. of an horizon rich in features and Belgic occupation material. On this was superimposed a mixed-rite cemetery with burials in the date range 50 BC - AD 100 (Perkins 1985).

68) *Chalk Hill, Ramsgate*

During the watching brief referred to in List 1, Site12, an area of Belgic settlement was encountered. The remains consisted of parallel ditches (some re-cut) running north - south, pits, and a rammed chalk floor. In addition to Belgic pottery, finds included spindle whorls and an iron fibulae (Perkins and Hearne 1995).

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APPENDIX 7.1. A LIST OF KENT BEAKERS RECORDED TO 1996

No.	No. of pots or sherds	Type/s (Clarke)	Steps, L. & v.d. W.:	Date 95% (BC)	Where found, when, comments and references
1	1	W/MR	3	-	Cliffsend, Thanet 1967, N. Macpherson-Grant. Arch. Cant 83, (1968)
2	2	EA + u/c	2 - 3	-	St Peters, Thanet, 1969-71, C. Hogarth 'Arch. Disc. Broadstairs & St Peters' (1972). R. barrow.
3	1	S2	5 - 6	2132-1922	Manston, Thanet, 1986, D. Perkins, & A. Gibson. Arch. Cant 108 (1990). Round barrow
4	2	EA + u/c	3	2130-1930	Ebbsfleet, Thanet, 1990, D. Perkins & A. Gibson, Arch. Cant. 105 (1992). A flat grave burial?
5	2	W/MR? + u/c	3?	2100-2085	Dumpton Gap, Thanet, 1992, C14 date for B.3 D. Perkins, archive and interim only. R. barrow.
6	1	S1?	3 or 4	2150-1975	A253 Monkton, Thanet, 1993, report in preparation. A flat grave burial.
7	1	n/k	n/k	-	Millmead, Margate, Thanet 1975. Kent Arch. Rescue Unit, unpublished. Round barrow?
8	8	4x AOC 2x Bell 2x Rustc	2 or 3	-	Lord of the Manor, Ramsgate, Thanet, 1976. Two ring-ditch sites yielded 49 sherds. Interim report by N. Macpherson-Grant, Thanet Soc. 1977.
9	3	1x AOC 2x u/c	2 or 3	-	East Northdown, Margate, Thanet 1984. G. Smith Arch. Cant. 104 (1987). Round barrow.
10	6	2x Rustc 4x u/c	-	-	Minnis Bay, Thanet (inter-tidal zone) 1960-70. Found by Antoinette Powell-Cotton, un-published.
11	4	Cord d. 2x Dom. 1x u/c	-	-	Laundry Hill, Minster, Thanet, 1995. D. Perkins, Interim, Arch. Cant. 115, (1995). Two sherds in Saxon grave fill, two in EBA settlement ditch.
12	21+	N3, 2 x S4, + u/c	5, 6, 7	-	Monkton, Thanet, 1994. Interims by A. Gibson, N. Macpherson-Grant, (1995). 3 complete pots from flat graves, sherds from ring ditch fills.
13	1			-	Allington. Jessup, Arch. of Kent, 94, now lost
14	2	E E Ang	2 - 3	-	Barham. Arch. Cant. 45, 175. Ant. J. 14, 183-4
15	1	S1	3 or 4	-	Brenley, Faversham, Jessup, 91. Abercromby 6.
16	1	E. Ang.	2 - 3	-	Bromley, Arch. Cant. 45, 175
17	2	N/MR BW		-	Canterbury, VCH Kent, 1, 324, Jessup, 93. P.S.A.L. 2, 18, 279
18	2	S1 + N3		-	Capel le Ferne, Folkestone, BM unpublished
19	2	E	Pt.1 2-4	-	Highstead, Chislehurst. Abercromby, 34, 35
20	1	E. Ang.	2 - 3	-	Cliffe
21	1	E. Ang.	2 - 3	-	Connaught Park, Dover, Arch. Cant. 45, 175
22	1	E. Ang.	2 - 3	-	Dover (Castle area), Ant. J. 16, 469
23	1	N3	5 - 7	-	Dover, St Margaret's Bay, Arch. Cant. 70, 267
24	2	E. Ang.	2 - 3	-	Erith, Abercromby 36, 37
25	1	BW	Pt.1 2-4	-	Folkestone (district) Ant. J., 20, 487
26	1	N3	5 - 7	-	Folkestone, (golf links) Ant. J. 20, 487
27	4	2xBW, FP E. Ang	Pt.1, 2-4	-	Gravesend (district) Gravesend Hist. Soc., unpublished.
28	1	E. Ang.	2 - 3	-	Great Mongham, Ripple, Ant. J., 16, 469.
29	1	E. Ang.	2 - 3	-	Ightham, Arch. Cant. 45,
30	1	E	Pt.1 2-4	-	Maidstone (Lower Fant), Jessup, 91

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31	1	E.Ang.	2 - 3	-	Ash (Preston), Canterbury Mus. unpublished.
32	1	u/c	-	-	Seasalter at Sea, Canterbury Mus. unpublished.
33	2	BW + u/c	Pt.1, 2 - 4	-	Sturry. Arch. Cant. 15, 175-6
34	1	BW	Pt.1 2-4	-	Tovil, Jessup, 91.
35	1	E.Ang.	Pt.1 2-4	-	Mongeham, Upper Deal, Arch. Cant. 64, 150.
36	1	E.Ang.	Pt.1 2-4	-	Swalecliffe, Arch. Cant. 93, 212.
37	1	BW	Pt.1 2-4	-	Wye, Arch. Cant. 110, 399.
38	2+	u/c	-	-	Ebbsfleet, Thanet, sherds from Features 7 and 9b, Arch. Cant 110, 287
39	1+	u/c	-	-	Aylsford (Kit's Coty House), Arch. Cant. 48, 234
40	250+ from 400 F	u/c	Early, mostly before	-	Holywell Coombe, Folkestone, Channel Tunnel route, spring-line of coastal plain. Macpherson-Grant and Gibson in preparation.
41	200+	u/c	Steps 4 - 5	-	Holywell Coombe - Newington, 15 Sites. To be published with above.
42	32	u/c	-	-	Castle Hill, Folkestone, Macpherson-Grant and Gibson in preparation. From 3 round barrows
43	2	u/c	-	-	Kingston Down, Macpherson-Grant unpublished
44	2	E.Ang. + u/c	Pt 1 2-4	-	Adisham, (Adisham-Stourmouth Water Main. Arch. Cant. 93, 123.
45	2	u/c	-	-	Whitfield-Eastry by-pass 1995, unpublished.
46	1	u/c	-	-	Dryden Road, Dover, 1996, unpublished.
47	2	u/c	-	-	Kenington, Ashford, 1992, unpublished.
48	1	u/c	-	-	Whitfield-Eastry by-pass, 1996, unpublished. Flat Grave
49	1	Rustc.	-	-	Cliff Fort, Dover, 1996, unpublished
50	1	Rustc.	-	-	Lyd Quarry, unpublished.
51	1	u/c	-	-	Peacock Barrow, Stowting (Stone Street) unpub.
52	1	u/c	-	-	Boughton Aluph, 1972, unpublished.
53	1	u/c	-	-	Olantigh Barrow, Wye, unpublished.
54	1	u/c	-	-	Barrow, Wye, 1972, unpublished.
55	1	u/c	-	-	Snodland, Holborough Hill, Unpublished.
56	1	u/c	-	-	Upper Halling, unpublished.
57	31+	u/c	6 - 7	-	Lydden Valley, Deal, Parfitt 1985, KAR (82)
Total	685				

Of the above total of 685 beakers 493 (71%) were settlement debris finds. The provenance of the remaining 192 vessels (28%) breaks down as: grave goods or from round barrow contexts 177, uncertain or unprovenanced 15.

The statistics of distribution are: Channel Tunnel route, Dover - Folkestone: 482 (70%) of which 450 finds were settlement debris and 32 were from round barrows. Thanet: 54 (7.8%) of which 42 finds were grave goods and 12 were settlement debris. Other locations throughout Kent: 149 (21%) of which 118 were grave goods or from round barrow contexts and 31 were from settlement sites.

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APPENDIX 10.1. DATA FOR TREND SURFACE ANALYSIS

→ eastings: TR 10 - 40

0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
0	0	0	0	0	0	0	0	0	15	20	45	40	5	15
0	0	0	20	10	20	0	10	70	45	30	20	20	40	35
25	10	0	0	0	5	30	20	75	5	45	15	25	25	65
0	10	0	0	0	10	0	0	10	50	50	50	55	20	0
0	0	0	5	5	0	0	20	0	5	5	45	0	0	0
0	10	0	25	10	0	0	0	10	10	20	0	0	0	0
10	25	25	0	0	0	0	0	20	0	0	0	0	0	0
10	20	15	0	0	0	0	5	0	0	0	10	15	0	0
5	5	0	10	10	15	5	0	0	0	0	15	5	5	0
0	0	0	0	15	15	0	5	0	10	15	10	25	25	0
10	10	0	0	0	15	5	5	0	15	25	20	25	15	0
10	10	0	0	0	15	5	5	0	15	25	20	25	15	0
0	0	0	10	0	0	0	5	0	0	10	5	15	5	0
0	0	0	0	10	5	0	0	0	0	0	25	30	5	0
0	0	0	0	0	0	0	0	0	10	0	10	10	0	0
0	0	0	0	0	0	0	0	0	0	0	30	0	0	0
0	0	0	0	0	0	10	0	0	0	10	0	0	0	0
0	0	0	0	0	15	10	0	0	0	0	0	0	0	0
0	0	0	0	0	15	5	0	0	0	0	0	0	0	0

↑ northings TR 35 - 73

A block of 285 quadrats, each representing four square kilometres. This is based on the one kilometre OS grid squares within the eastings and northings given. Numbers in squares are the combined weighted values for settlements, barrows and bronzes as calculated in Chapter 10.2.

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APPENDIX 11: RADIOCARBON DATES QUOTED IN VOLUME 1, LABORATORY INFORMATION

<i>Chapter:</i>	<i>Lab Ref</i>	<i>Site</i>	<i>Result BP</i>	<i>Calibrated Age Ranges by probability method (Pearson & Stuiver 1986)</i>	
				<i>Calendar BC</i>	
				<i>68% confidence</i>	<i>95% confidence</i>
3.2.	BM-2642	Manston	3630 ± 50	2120 - 2080	2140 - 1885
		Bridge Bypass		980 ± 60*	
5.1	BM?	Castle Hill	2265 ± 50	not given, un-calibrated?	
9.2	K-5015	Hjortspring Boats	not given	390-210	
	K-5016	" "	not given	400-260	
10.3	BM-2975	Dmpton Down	3630 ± 45	2120 - 2080	2135 - 1895
	BM-2940	barrow burials	3560 ± 50	2020 - 2000	2100 - 2085
	BM-2864		3520 ± 40	1920 - 1870	1965 - 1745

*Harwell 376, Otlet and Walker 1979